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1 AUGUST 1999
CHANGE 3 – 15 MARCH 2003

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

NAVY MODEL
F/A-18A AND F/A-18B
161353 AND UP

This manual is incomplete without A1-F18AC-FRM-010 (C).

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NATEC ELECTRONIC MANUAL

NUMERICAL INDEX OF EFFECTIVE WORK PACKAGES/PAGES

List of Current Changes

Original 0 1 Aug 99 Change 1 1 Feb 01 Change 2 1 Jun 02
 (Incl. IRAC's 1 through 3) (Incl. IRAC 4) Change 3 15 Mar 03

Only those work packages/pages assigned to the manual are listed in this index. Insert Change 3, dated 15 March 2003. Dispose of superseded work packages/pages. Superseded classified work packages/pages shall be destroyed in accordance with applicable security regulations. If changed pages are issued to work package, insert the changed pages in the applicable work package. The portion of text affected in a change or revision is indicated by change bars or the change symbol "R" in the outer margin of each column of text. Changes to illustrations are indicated by pointing hands, change bars, or MAJOR CHANGE symbols. Changes to diagrams may be indicated by shaded borders.

| WP Number | Title | WP Number | Title |
|----------------------|--|----------------------|--|
| Title | | 009 01 | HSI Display Symbology - F/A-18A |
| Page A | Numerical Index of Effective Work Packages/Pages | | AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 |
| TPDR-1 | List of Technical Publications | 010 00 | Stores Display Symbology |
| | Deficiency Reports Incorporated | 010 01 | Stores Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 |
| 001 00 | Alphabetical Index | | |
| 001 01 | Deleted | | |
| 001 02 | Display Symbology Index | 011 00 | TV Video Weapon Display Symbology |
| 002 00 | Introduction | | |
| 002 01 | Fault Reporting/Fault Isolation Concept | 012 00 | FLIR Display Symbology |
| 003 00 | Nose Wheelwell DDI Maintenance Code Listing | 012 01 | FLIR Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 |
| 003 01 | Nose Wheelwell DDI Maintenance Code Listing - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 013 00 | KDT/CAM Display Symbology |
| | | 014 00 | LINK 4 Display Symbology |
| 004 00 | Warning, Caution, Advisory and Fault Indications | 015 00 | ADI Display Symbology |
| 005 00 | Fault Descriptor | 016 00 | Miscellaneous Display Symbology |
| 006 00 | Circuit Breaker Trips Symptoms | 016 01 | Miscellaneous Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 |
| 007 00 | HUD Display Symbology | | |
| 007 01 | HUD Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 017 00 | Universal Transverse Mercator Display Symbology |
| 008 00 | Radar Display Symbology | 017 01 | Universal Transverse Mercator Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 |
| 008 01 | Radar Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 018 00 | Flight Performance Advisory System (FPAS) Display Symbology |
| 009 00 | HSI Display Symbology | 019 00 | AZ/EL Display Symbology |

A1-F18AC-FRM-000

Change 3

Page B/(C blank)

NUMERICAL INDEX OF EFFECTIVE WORK PACKAGES/PAGES (Cont)

Total number of pages in this manual is 898, consisting of the following:

| WP/Page Number | Change Number | WP/Page Number | Change Number | WP/Page Number | Change Number | WP/Page Number | Change Number |
|-----------------------|------------------|-------------------|------------------|-----------------------|------------------|-------------------|------------------|
| Title | 3 | 17 - 19 | 1 | 36 | 1 | 009 00 | |
| A - B | 3 | 20 | 0 | 37 | 3 | 1 | 1 |
| C blank | 3 | 21 - 22 | 1 | 38 - 42 | 1 | 2 | 0 |
| TPDR-1 | 3 | 22A | 1 | 42A | 1 | 3 | 1 |
| TPDR-2 blank | 3 | 22B blank | 1 | 42B blank | 1 | 4 - 30 | 0 |
| 001 00 | | 23 | 0 | 43 - 45 | 0 | 009 01 | |
| 1 - 4 | 3 | 24 | 1 | 46 - 47 | 1 | 1 - 39 | 1 |
| 001 01 deleted | 3 | 25 | 0 | 48 - 49 | 0 | 40 blank | 1 |
| 001 02 | | 26 - 27 | 1 | 50 - 54 | 1 | 010 00 | |
| 1 - 30 | 1 | 28 - 30 | 0 | 54A | 1 | 1 | 1 |
| 002 00 | | 31 | 1 | 54B blank | 1 | 2 - 29 | 0 |
| 1 - 7 | 3 | 32 | 0 | 55 - 56 | 0 | 30 blank | 0 |
| 8 blank | 3 | 33 - 35 | 1 | 57 | 2 | 010 01 | |
| 002 01 | | 36 - 57 | 0 | 58 | 0 | 1 - 45 | 1 |
| 1 - 3 | 0 | 58 - 63 | 1 | 59 | 3 | 46 blank | 1 |
| 4 blank | 0 | 64 | 3 | 60 - 62 | 1 | 011 00 | |
| 5 | 0 | 65 | 1 | 62A - 62B | 1 | 1 - 32 | 0 |
| 6 blank | 0 | 66 - 68 | 2 | 63 | 1 | 012 00 | |
| 003 00 | | 68A - 68B | 2 | 64 - 65 | 0 | 1 | 1 |
| 1 | 2 | 69 | 0 | 66 - 73 | 1 | 2 - 8 | 0 |
| 2 blank | 2 | 70 | 1 | 74 | 0 | 012 01 | |
| 3 - 68 deleted | 2 | 71 - 72 | 0 | 75 - 76 added | 2 | 1 - 12 | 1 |
| 003 01 | | 005 00 | | 006 00 | | 013 00 | |
| 1 | 3 | 1 | 3 | 1 | 3 | 1 - 5 | 0 |
| 2 - 55 | 2 | 2 | 2 | 2 | 2 | 6 blank | 0 |
| 56 | 3 | 2A | 2 | 3 - 7 | 0 | 014 00 | |
| 57 - 67 | 2 | 2B blank | 2 | 8 - 9 | 3 | 1 - 6 | 1 |
| 68 blank | 2 | 3 | 2 | 10 - 15 | 0 | 015 00 | |
| 69 - 82 deleted | 2 | 4 | 0 | 16 | 3 | 1 - 4 | 1 |
| 003 02 | | 5 | 1 | 17 - 32 | 0 | 016 00 | |
| 1 - 68 added | 2 | 6 | 0 | 33 - 34 | 2 | 1 | 1 |
| 003 03 | | 7 - 8 | 1 | 35 - 36 deleted | 2 | 2 - 6 | 0 |
| 1 | 3 | 8A | 1 | 007 00 | | 016 01 | |
| 2 - 35 | 2 | 8B blank | 1 | 1 | 1 | 1 - 7 | 1 |
| 36 | 3 | 9 - 10 | 0 | 2 - 37 | 0 | 8 blank | 1 |
| 37 - 42 | 2 | 11 | 1 | 38 blank | 0 | 017 00 | |
| 43 - 45 | 3 | 12 | 0 | 007 01 | | 1 | 1 |
| 46 - 77 | 2 | 13 | 1 | 1 - 45 | 1 | 2 - 6 | 0 |
| 78 - 79 | 3 | 14 - 17 | 0 | 46 blank | 1 | 017 01 | |
| 80 - 82 | 2 | 18 - 19 | 1 | 008 00 | | 1 - 10 | 1 |
| 004 00 | | 20 | 0 | 1 | 1 | 018 00 | |
| 1 | 3 | 21 - 27 | 1 | 2 - 29 | 0 | 1 - 5 | 1 |
| 2 | 2 | 28 - 31 | 0 | 30 blank | 0 | 6 blank | 1 |
| 3 - 5 | 1 | 32 | 2 | 008 01 | | 019 00 | |
| 6 - 16 | 0 | 32A added | 2 | 1 - 51 | 1 | 1 - 10 | 1 |
| | | 32B blank | 2 | 52 blank | 1 | | |
| | | 33 - 35 | 0 | | | | |

LIST OF TECHNICAL PUBLICATION DEFICIENCY REPORTS INCORPORATED
ORGANIZATIONAL MAINTENANCE
FAULT REPORTING MANUAL

This WP supersedes TPDR WP dated, 1 June 2002.

1. The TPDRs listed below have been incorporated in this issue.

| IDENTIFICATION NUMBER/ QA SEQUENCE NUMBER | LOCATION |
|--|---------------------------|
| 30338-02-0015 | WP003 03, Pgs. 43, 44, 45 |
| 30338-02-0030 | WP003 03, Pg. 36 |
| 30338-02-0032 | WP003 03, Pgs. 78, 79 |
| 30338-03-0040 | Previously Corrected |
| 31225-02-0021 | WP005 00, Pg. 37 |
| 33203-02-0006 | WP004 00, Pg. 64 |
| 44689-02-0026 | WP005 00, Pg. 59 |

ALPHABETICAL INDEX
ORGANIZATIONAL MAINTENANCE
FAULT REPORTING MANUAL

This WP supersedes WP001 00 dated, 1 June 2002.

| Title | WP Number |
|---|--------------|
| ADI Display Symbology | 015 00 |
| Avionics Mux Bus 1 Fail Troubleshooting – F/A–18A AND F/A–18B BEFORE F/A–18 AFC 225, F/A–18 AFC 231, F/A–18 AFC 253, OR F/A–18 AFC 292 | 003 01 |
| Avionics Mux Bus 1 Fail Troubleshooting – F/A–18A AND F/A–18B AFTER F/A–18 AFC 225 AND F/A–18 AFC 231 | 003 02 |
| Avionics Mux Bus 1 Fail Troubleshooting – F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292; AND AFTER F/A–18 AFC 231 PART 2 OR PART 3 | 003 03 |
| Avionics Mux Bus 2 Fail Troubleshooting – F/A–18A AND F/A–18B BEFORE F/A–18 AFC 225, F/A–18 AFC 231, F/A–18 AFC 253, OR F/A–18 AFC 292 | 003 01 |
| Avionics Mux Bus 2 Fail Troubleshooting – F/A–18A AND F/A–18B AFTER F/A–18 AFC 225 AND F/A–18 AFC 231 | 003 02 |
| Avionics Mux Bus 2 Fail Troubleshooting – F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292; AND AFTER F/A–18 AFC 231 PART 2 OR PART 3 | 003 03 |
| AZ/EL Display Symbology | 019 00 |
| CAM/LDT Display Symbology | 013 00 |
| Checklist Display | 016 00 |
| Checklist Display - F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292 | 016 01 |
| Circuit Breaker Trips Symptoms | 006 00 |
| Digital Display Indicator ID–2160/ASM–612 Maintenance Code Listing | 003 00 |
| Digital Display Indicator ID–2160/ASM–612 Maintenance Code Listing – F/A–18A AND F/A–18B BEFORE F/A–18 AFC 225, F/A–18 AFC 231, F/A–18 AFC 253, OR F/A–18 AFC 292 | 003 01 |
| Digital Display Indicator ID–2160/ASM–612 Maintenance Code Listing – F/A–18A AND F/A–18B AFTER F/A–18 AFC 225 AND F/A–18 AFC 231 | 003 02 |
| Digital Display Indicator ID–2160/ASM–612 Maintenance Code Listing – F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292; AND AFTER F/A–18 AFC 231 PART 2 OR PART 3 | 003 03 |
| Display Symbology Index | 001 02 |
| ECCM Display (A1-F18AC-FRM-010(C)) | |
| Fault Descriptor (Troubleshooting References) | 005 00 |
| ADF System | 005 00 |
| Air Data Computer System | 005 00 |
| Arresting Gear System | 005 00 |
| Backup Attitude System | 005 00 |
| Catapult System | 005 00 |
| Communication System | 005 00 |
| Countermeasures Dispensing System | 005 00 |
| Countermeasures Set | 005 00 |
| Countermeasures Warning and Control System | 005 00 |
| Data Link System | 005 00 |
| Electrical System | 005 00 |
| Electronic Altimeter System | 005 00 |

| Title | WP Number |
|---|--------------|
| Engine System | 005 00 |
| Environmental Control System | 005 00 |
| Flight Control System | 005 00 |
| FLIR System | 005 00 |
| Forward Looking Infrared System | 005 00 |
| Fuel System | 005 00 |
| Gun System | 005 00 |
| Head-Up Display | 005 00 |
| Hydraulic System | 005 00 |
| IFF System | 005 00 |
| Inertial Navigation System | 005 00 |
| Instrument Landing System | 005 00 |
| Instrument System | 005 00 |
| Intercommunication and Audio System | 005 00 |
| Interference Blanker System | 005 00 |
| Landing Gear and Related System | 005 00 |
| Laser Detector Tracker System | 005 00 |
| LDT System | 005 00 |
| Lighting System | 005 00 |
| Maintenance Status Display and Recording System | 005 00 |
| Mission Computer System | 005 00 |
| Multipurpose Display Group | 005 00 |
| Nose Wheel Steering System | 005 00 |
| Radar Beacon System | 005 00 |
| Radar System | 005 00 |
| Secondary Power System | 005 00 |
| Secure Speech System | 005 00 |
| Speed Brake System | 005 00 |
| Stores Management System | 005 00 |
| Strain Gages | 005 00 |
| Strike Camera System | 005 00 |
| TACAN System | 005 00 |
| Video Recording System | 005 00 |
| Weapon System | 005 00 |
| Wheel Brake and Antiskid System | 005 00 |
| Wing Fold System | 005 00 |
| Fault Reporting/Fault Isolation Concept | 002 01 |
| Circuit Breaker Trip | 002 01 |
| Digital Display Indicator ID-2150/ASM-612 Maintenance Codes | 002 01 |
| Display Symbology | 002 01 |
| Fault Descriptor Listing | 002 01 |
| Fault Reporting/Fault Isolation Concept | 002 01 |
| Technical Manual Concept for Unscheduled Maintenance | 002 01 |
| Troubleshooting Beyond BIT/System Testing | 002 01 |
| Troubleshooting Improvement | 002 01 |
| Warning Caution, Advisory and Fault Indicator Displays | 002 01 |
| Flight Performance Advisory System (FPAS) Display Symbology | 018 00 |
| FLIR Display Symbology | 012 00 |
| FLIR Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 012 01 |
| Head-Up Display Format | 007 00 |
| Head-Up Display Format - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 007 01 |
| HSI Display Symbology | 009 00 |
| HSI Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 009 01 |
| HUD Display Symbology | 007 00 |

| Title | WP Number |
|---|--------------|
| HUD Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 007 01 |
| HUD ECCM Display Symbology (A1-F18AC-FRM-010/(C)) | |
| Introduction | 002 00 |
| Diagrams | 002 00 |
| Effectivities | 002 00 |
| Historical Record/Record of Applicable Technical Directives | 002 00 |
| Illustrated Parts Breakdown | 002 00 |
| Manual Issue Date | 002 00 |
| Navy (AN) Standard/Common Name Nomenclature | 002 00 |
| Purpose | 002 00 |
| Quality Assurance Procedures | 002 00 |
| Requisitioning and Distribution of NAVAIR Technical Publications | 002 00 |
| Technical Directives | 002 00 |
| Technical Publications Deficiency Report (TPDR) | 002 00 |
| Test Procedures | 002 00 |
| Troubleshooting | 002 00 |
| LDT/CAM Display Symbology | 013 00 |
| Link 4 Display Symbology | 014 00 |
| Maintenance Codes | 003 00 |
| Maintenance Codes – F/A–18A AND F/A–18B BEFORE F/A–18 AFC 225, F/A–18 AFC 231, F/A–18 AFC 253, OR F/A–18 AFC 292 | 003 01 |
| Maintenance Codes – F/A–18A AND F/A–18B AFTER F/A–18 AFC 225 AND F/A–18 AFC 231 | 003 02 |
| Maintenance Codes – F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292; AND AFTER F/A–18 AFC 231 PART 2 OR PART 3 | 003 03 |
| MENU Displays | 016 00 |
| MENU Displays - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 016 01 |
| Miscellaneous Display Symbology | |
| Checklist Display | 016 00 |
| Checklist Display - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 016 01 |
| MENU Displays | 016 00 |
| MENU Displays - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 016 01 |
| MMP Codes | 003 00 |
| MMP Codes – F/A–18A AND F/A–18B BEFORE F/A–18 AFC 225, F/A–18 AFC 231, F/A–18 AFC 253, OR F/A–18 AFC 292 | 003 01 |
| MMP Codes – F/A–18A AND F/A–18B AFTER F/A–18 AFC 225 AND F/A–18 AFC 231 | 003 02 |
| MMP Codes – F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292; AND AFTER F/A–18 AFC 231 PART 2 OR PART 3 | 003 03 |
| NCTR Display Symbology (A1-F18AC-FRM-010/(C)) | |
| Non-Cooperative Target Recognition (NCTR) Radar Display Symbology (A1-F18AC-FRM-010/(C)) | |
| Radar Display Symbology | 008 00 |
| Radar Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 008 01 |
| Radar ECCM Display Symbology (A1-F18AC-FRM-010/(C)) | |
| Stores Display Symbology | 010 00 |
| Stores Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 010 01 |
| Troubleshooting | |
| Avionics Mux Bus 1 Fail Troubleshooting – F/A–18A AND F/A–18B BEFORE F/A–18 AFC 225, F/A–18 AFC 231, F/A–18 AFC 253, OR F/A–18 AFC 292 | 003 01 |
| Avionics Mux Bus 1 Fail Troubleshooting – F/A–18A AND F/A–18B AFTER F/A–18 AFC 225 AND F/A–18 AFC 231 | 003 02 |
| Avionics Mux Bus 1 Fail Troubleshooting – F/A–18A AFTER F/A–18 AFC 253 OR F/A–18 AFC 292; AND AFTER F/A–18 AFC 231 PART 2 OR PART 3 | 003 03 |

| Title | WP Number |
|---|--------------|
| Troubleshooting References | 005 00 |
| ADF System | 005 00 |
| Air Data Computer System | 005 00 |
| Arresting Gear System | 005 00 |
| Backup Attitude System | 005 00 |
| Catapult System | 005 00 |
| Communication System | 005 00 |
| Countermeasures Dispensing System | 005 00 |
| Countermeasures Set | 005 00 |
| Countermeasures Warning and Control System | 005 00 |
| Data Link System | 005 00 |
| Electrical System | 005 00 |
| Electronic Altimeter System | 005 00 |
| Engine System | 005 00 |
| Environmental Control System | 005 00 |
| Flight Control System | 005 00 |
| FLIR System | 005 00 |
| Forward Looking Infrared System | 005 00 |
| Fuel System | 005 00 |
| Gun System | 005 00 |
| Head-Up Display | 005 00 |
| Hydraulic System | 005 00 |
| IFF System | 005 00 |
| Inertial Navigation System | 005 00 |
| Instrument Landing System | 005 00 |
| Instrument Systems | 005 00 |
| Intercommunication and Audio System | 005 00 |
| Interference Blanker System | 005 00 |
| Landing Gear and Related Systems | 005 00 |
| Laser Detector Tracker System | 005 00 |
| LDT System | 005 00 |
| Lighting System | 005 00 |
| Maintenance Status Display and Recording System | 005 00 |
| Mission Computer System | 005 00 |
| Multipurpose Display Group | 005 00 |
| Nose Wheel Steering System | 005 00 |
| Radar Beacon System | 005 00 |
| Radar System | 005 00 |
| Secure Speech System | 005 00 |
| Secondary Power System | 005 00 |
| Speed Brake System | 005 00 |
| Stores Management System | 005 00 |
| Strain Gages | 005 00 |
| Strike Camera System | 005 00 |
| TACAN System | 005 00 |
| Video Recording System | 005 00 |
| Wheel Brake and Anti-Skid System | 005 00 |
| Wing Fold System | 005 00 |
| TV Video Weapon Display Symbology | 011 00 |
| Universal Transverse Mercator Display Symbology | 017 00 |
| Universal Transverse Mercator Display Symbology - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | 017 01 |
| Warning Caution Advisory and Fault Indications | 004 00 |

DISPLAY SYMBOLOGY INDEX
ORGANIZATIONAL MAINTENANCE
FAULT REPORTING MANUAL

This WP supersedes WP001 02 dated, 1 August 1999.

| Subject | Work Package |
|--------------------------------|-----------------|
| A/ANT | 011 00 |
| A/A Gun DSTB Mode | 010 00 |
| ..... | 010 01 |
| A/A Mode HUD Symbology | 007 00 |
| ..... | 007 01 |
| A/A Mode Radar Symbology | 008 00 |
| ..... | 008 01 |
| A/A Radar Target | 009 00 |
| ..... | 009 01 |
| A/A Stores Symbology | 010 00 |
| ..... | 010 01 |
| A/C | 011 00 |
| A/C Data | 009 00 |
| ..... | 009 01 |
| A/C PU | 007 00 |
| ..... | 007 01 |
| A/C Pullup Release Cue | 007 00 |
| ..... | 007 01 |
| A/C RNG | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| A/C WT | 016 00 |
| ..... | 016 01 |
| A/C Weight and Max Nz | 016 00 |
| ..... | 016 01 |
| A/G Delivery Mode | 007 00 |
| ..... | 007 01 |
| A/G Mode | 008 00 |
| ..... | 008 01 |
| A/G Mode HUD Symbology | 007 00 |
| ..... | 007 01 |
| A/G Mode Radar Symbology | 008 00 |
| ..... | 008 01 |
| A/G Not Ready X | 007 00 |
| ..... | 007 01 |
| A/G Reticle | 007 00 |
| ..... | 007 01 |
| A/G Stores Symbology | 010 00 |
| ..... | 010 01 |
| A/G Weapon | 016 00 |
| ..... | 016 01 |
| AACQ | 007 00 |

| Subject | Work Package |
|--|-----------------|
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| Acceleration Vector | 008 00 |
| ..... | 008 01 |
| ACFT Waterline | 007 00 |
| ..... | 007 01 |
| ACL | 009 00 |
| ..... | 009 01 |
| ACL Cues | 007 00 |
| ..... | 007 01 |
| ACL Mode Link 4 Display Symbology | 014 00 |
| ACL N/A | 014 00 |
| ACL RDY | 007 00 |
| ..... | 007 01 |
| ..... | 014 00 |
| ACL 1 | 014 00 |
| ACL 2 | 014 00 |
| ACPT/REJ | 009 00 |
| ..... | 009 01 |
| Acquisition Cursor | 008 00 |
| ..... | 008 01 |
| Acquisition Gate | 012 00 |
| ..... | 012 01 |
| ACT | 007 00 |
| ..... | 007 01 |
| ACTIVE | 008 00 |
| ..... | 008 01 |
| ADF Bearing | 009 00 |
| ..... | 009 01 |
| ADI | 015 00 |
| ADJ A/C | 014 00 |
| AGC/Threshold Level (sensitivity indicator) | 008 00 |
| ..... | 008 01 |
| AGE | 010 00 |
| ..... | 010 01 |
| AGM-84E SLAM Symbology | 011 00 |
| AGM-88 HARM Pre-Briefed (PB) Mode Symbology | 011 00 |
| AGM-88 HARM Self-Protect (SP) Mode Symbology | 011 00 |
| AGM-88 HARM Target of Opportunity (TOO) Mode Symbology | 011 00 |
| Aging, Target | 008 00 |
| ..... | 008 01 |
| AGR | 008 00 |
| ..... | 008 01 |
| AGUN | 010 00 |
| ..... | 010 01 |
| AIR | 008 00 |
| ..... | 008 01 |
| Aircraft Position | 017 00 |
| ..... | 017 01 |
| Aircraft Speed | 009 00 |
| ..... | 009 01 |
| Aircraft Symbol | 009 00 |
| ..... | 009 01 |

| Subject | Work Package |
|--|-----------------|
| Airspeed | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| Airspeed and Mach Number | 012 00 |
| ..... | 012 01 |
| Airspeed, True | 007 00 |
| ..... | 007 01 |
| ALG | 012 00 |
| ..... | 012 01 |
| Align Coordinates/Present Position | 009 00 |
| ..... | 009 01 |
| Align TIME | 009 00 |
| ..... | 009 01 |
| ALT | 010 00 |
| ..... | 010 01 |
| Alternate Units | 017 00 |
| ..... | 017 01 |
| Altitude | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| Altitude Differential | 008 00 |
| ..... | 008 01 |
| AM | 007 00 |
| ..... | 007 01 |
| AM CHAN | 010 00 |
| ..... | 010 01 |
| AM D/L Channel Degrade X | 010 00 |
| ..... | 010 01 |
| AM D/L Channel Digit | 010 00 |
| ..... | 010 01 |
| AM TEST | 010 00 |
| ..... | 010 01 |
| Angle Gate Enable | 010 00 |
| ..... | 010 01 |
| Angle of Attack Digital | 007 00 |
| ..... | 007 01 |
| Angle of Attack Scale | 007 00 |
| ..... | 007 01 |
| Angle Off Track | 008 00 |
| ..... | 008 01 |
| Angle Pointer Aspect | 008 00 |
| ..... | 008 01 |
| Antenna Elevation Optimum | 008 00 |
| ..... | 008 01 |
| Antenna Elevation Scale and Caret | 008 00 |
| ..... | 008 01 |
| ARM/SAFE/SIM | 010 00 |
| ..... | 010 01 |

| Subject | Work Package |
|---|-----------------|
| ASE Circle | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| Aspect Angle Pointer | 008 00 |
| ..... | 008 01 |
| ATC Cue | 007 00 |
| ..... | 007 01 |
| AUTO | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| AUTO Update Select | 009 00 |
| ..... | 009 01 |
| AUTO/BIAS/MAN Scan Center | 008 00 |
| ..... | 008 01 |
| Automatic Level/Gain | 012 00 |
| ..... | 012 01 |
| Azimuth and Elevation Grid | 011 00 |
| Azimuth Grid | 008 00 |
| ..... | 008 01 |
| Azimuth Readout | 012 00 |
| ..... | 012 01 |
| Azimuth Scan | 008 00 |
| ..... | 008 01 |
| Azimuth Steering Line | 007 00 |
| ..... | 007 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| B-Sweep | 008 00 |
| ..... | 008 01 |
| Backup Navigation Symbology | 009 00 |
| ..... | 009 01 |
| BANK R or BANK L | 010 00 |
| ..... | 010 01 |
| Bank Scale | 007 00 |
| ..... | 007 01 |
| Barometric Setting | 007 00 |
| ..... | 007 01 |
| Bearing ADF | 009 00 |
| ..... | 009 01 |
| Bearing, TACAN Digital Range and | 009 00 |
| ..... | 009 01 |
| Bearing, Waypoint Digital Range and | 009 00 |
| ..... | 009 01 |
| BIAS | 008 00 |
| ..... | 008 01 |
| BLK | 012 00 |
| ..... | 012 01 |

| Subject | Work Package |
|--------------------------------------|-----------------|
| BLK/WHT Hot Polarity | 012 00 |
| ..... | 012 01 |
| Boat Cue | 010 00 |
| ..... | 010 01 |
| Break-X | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| BST Radar Coverage | 007 00 |
| ..... | 007 01 |
| CAGE | 013 00 |
| CAGED/UNCAGED | 011 00 |
| CAGED/UNCAGED Notice, Maverick | 011 00 |
| CAM | 013 00 |
| CAM Not Ready Indication | 013 00 |
| CCIP | 007 00 |
| ..... | 007 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| CCIP Time to Go | 007 00 |
| ..... | 007 01 |
| CCM | 011 00 |
| CHAN | 008 00 |
| ..... | 008 01 |
| ..... | 011 00 |
| Channel Fail X, RF | 008 00 |
| ..... | 008 01 |
| Checklist | 016 00 |
| ..... | 016 01 |
| Checklist Display | 016 00 |
| ..... | 016 01 |
| Channel, RF | 008 00 |
| ..... | 008 01 |
| CHG CHNL | 014 00 |
| CLASS | 011 00 |
| Closing Velocity | 008 00 |
| ..... | 008 01 |
| CLR | 011 00 |
| CMD A/S | 014 00 |
| CMD ALT | 014 00 |
| CMD CNT | 014 00 |
| CMD ROD | 014 00 |
| Code Invalid X, LDT | 013 00 |
| Command Airspeed Characters | 014 00 |
| Command Altitude Characters | 014 00 |
| Command Heading, Data Link | 007 00 |
| ..... | 007 01 |
| Command Heading, NAV or A/G | 007 00 |
| ..... | 007 01 |
| Command Heading Pointer | 009 00 |
| ..... | 009 01 |
| Command Rate of Descent Data | 014 00 |

| Subject | Work Package |
|---|-----------------|
| COMP | 009 00 |
| Compass Rose | 009 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| ..... | 014 00 |
| CONT PVU | 009 00 |
| ..... | 009 01 |
| Continuously Computed Impact Point (CCIP) Cross | 007 00 |
| ..... | 007 01 |
| Counter - Countermeasures Mode | 011 00 |
| Course Line | 009 00 |
| ..... | 009 01 |
| Course Select | 009 00 |
| ..... | 009 01 |
| CPL HDG | 007 00 |
| ..... | 007 01 |
| CPL P/R | 007 00 |
| ..... | 007 01 |
| CRAB | 011 00 |
| Crosshairs, Video | 011 00 |
| CSEL | 009 00 |
| ..... | 009 01 |
| Cursor | 011 00 |
| Cursor Acquisition | 008 00 |
| ..... | 008 01 |
| Cursor In-Video | 008 00 |
| ..... | 008 01 |
| CV HDG | 009 00 |
| ..... | 009 01 |
| CV MAN | 009 00 |
| ..... | 009 01 |
| CV RF/CBL | 009 00 |
| ..... | 009 01 |
| CV SPD | 007 00 |
| ..... | 007 01 |
| DATA | 007 00 |
| ..... | 007 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| Data Freeze Parameters | 010 00 |
| ..... | 010 01 |
| Data Link Command Heading | 007 00 |
| ..... | 007 01 |
| Data Link Command Heading Bug | 014 00 |
| Data Link Discretes/Advisories | 007 00 |
| ..... | 007 01 |
| Data Link Steering | 007 00 |
| ..... | 007 01 |
| Data Link Weapon Controls | 010 00 |
| ..... | 010 01 |
| Data Link Window 1 Characters | 014 00 |
| Data Link Window 2 Characters | 014 00 |

| Subject | Work Package |
|-------------------------------|-----------------|
| Data Link Window 3 Characters | 014 00 |
| Data Link Window 4 Characters | 014 00 |
| DATA, A/C | 009 00 |
| Data TACAN | 009 01 |
| Data, WYPT | 009 00 |
| DCLTR | 008 00 |
| DEGD | 010 00 |
| Degraded Mode X | 011 00 |
| Delivery Mode A/G | 007 00 |
| Depression Limit Digits | 013 00 |
| Designation Range | 012 00 |
| Designator Target | 007 01 |
| Destination Range | 007 00 |
| DG | 009 00 |
| Differential Altitude | 008 00 |
| Digital Angle of Attack | 007 00 |
| DISNGAGE | 007 00 |
| D/ALT | 010 00 |
| D/L | 009 00 |
| D/RNG | 010 00 |
| DLP Display Initiate | 010 00 |
| DLY | 011 00 |
| DLY 1 | 010 00 |
| DLY 2 | 011 00 |
| DL9 | 010 00 |
| DRAG | 010 00 |
| DSTB Mode A/A Gun | 010 00 |
| DUD | 007 00 |

| Subject | Work Package |
|--|-----------------|
| EASB | 010 00 |
| | 010 01 |
| | 011 00 |
| ECCM | 008 00 |
| | 008 01 |
| EFUZ | 010 00 |
| | 010 01 |
| EJECT SEL | 016 00 |
| | 016 01 |
| ELBAR | 008 00 |
| | 008 01 |
| Electrical Fuzing Options | 010 00 |
| | 010 01 |
| | 011 00 |
| Electronic Altitude Sensor Bypass (EASE) | 010 00 |
| | 010 01 |
| Elevation Digits LDT | 013 00 |
| Elevation Readout | 012 00 |
| | 012 01 |
| Elevation Scale and Caret | 008 00 |
| | 008 01 |
| EMER | 008 00 |
| | 008 01 |
| ERASE | 008 00 |
| | 008 01 |
| EJECT | 009 00 |
| | 009 01 |
| ERROR | 010 00 |
| | 010 01 |
| ERROR L or ERROR R | 010 00 |
| | 010 01 |
| EXP | 008 00 |
| | 008 01 |
| EXP1 Indicator | 008 00 |
| | 008 01 |
| EXP1/INTL | 008 00 |
| | 008 01 |
| EXP2 | 008 00 |
| | 008 01 |
| EXP2 Indicator | 008 00 |
| | 008 01 |
| EXP3 | 008 00 |
| | 008 01 |
| EXP3 Indicator | 008 00 |
| | 008 01 |
| F | 009 00 |
| | 009 01 |
| F ANT | 011 00 |
| F/C | 011 00 |
| F DL | 010 00 |
| | 010 01 |
| F SEL | 010 00 |
| | 010 01 |
| FAIL | 010 00 |

| Subject | Work Package |
|--|-----------------|
| ..... | 010 01 |
| Fail X Channel, RF | 008 00 |
| ..... | 008 01 |
| Fail X, Mode | 008 00 |
| ..... | 008 01 |
| Fail X RF Channel | 008 00 |
| ..... | 008 01 |
| FAN | 008 00 |
| ..... | 008 01 |
| FAST | 008 00 |
| ..... | 008 01 |
| FF | 010 00 |
| ..... | 010 01 |
| Field of View Weapon | 007 00 |
| ..... | 007 01 |
| Filed Target | 008 00 |
| ..... | 008 01 |
| Flight Path/Pitch Ladder | 007 00 |
| ..... | 007 01 |
| FLIR | 007 00 |
| ..... | 007 01 |
| ..... | 016 00 |
| ..... | 016 01 |
| FLIR BIT Matrix | 012 00 |
| ..... | 012 01 |
| FLIR Status | 012 00 |
| ..... | 012 01 |
| FLIR Symbology | 012 00 |
| ..... | 012 01 |
| FLIR TDC Symbology | 012 00 |
| ..... | 012 01 |
| FLOOD | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| FLT | 010 00 |
| ..... | 010 01 |
| FOCS Adjustment | 012 00 |
| ..... | 012 01 |
| Focus Adjustment Value | 012 00 |
| ..... | 012 01 |
| FOV | 011 00 |
| FOV Reticle | 012 00 |
| ..... | 012 01 |
| FPA | 010 00 |
| ..... | 010 01 |
| Frames Remaining | 013 00 |
| FUEL INV/EST | 016 00 |
| ..... | 016 01 |
| Fuzing Options - Electrical Fuzing | 010 00 |
| ..... | 010 01 |
| Fuzing Options - Mechanical Fuzing | 010 00 |
| ..... | 010 01 |
| G | 010 00 |

| Subject | Work Package |
|--------------------------------|-----------------|
| GACQ Radar Coverage | 010 01 |
| | 007 00 |
| | 007 01 |
| Gain Adjustment Value | 012 00 |
| | 012 01 |
| GN | 008 00 |
| | 008 01 |
| GN Adjustment | 012 00 |
| | 012 01 |
| Ghost Velocity Vector | 012 00 |
| | 012 01 |
| Gimble Angle | 011 00 |
| Gimble Angle Position, 20_ | 011 00 |
| GMT | 008 00 |
| | 008 01 |
| GRAY | 012 00 |
| | 012 01 |
| Gray Scale | 012 00 |
| | 012 01 |
| GRND | 009 00 |
| | 009 01 |
| Grid Characters | 017 00 |
| | 017 01 |
| Grid Shift Options | 017 00 |
| | 017 01 |
| Grid Shift Reference | 017 00 |
| | 017 01 |
| Grid Zone Numbers | 017 00 |
| | 017 01 |
| Ground Speed | 008 00 |
| | 008 01 |
| Ground Speed Caret/Tick | 007 00 |
| | 007 01 |
| Ground Track Pointer (Diamond) | 009 00 |
| | 009 01 |
| | 014 00 |
| GSPD | 009 00 |
| | 009 01 |
| GUN | 007 00 |
| | 007 01 |
| | 010 00 |
| | 010 01 |
| Gun Decoder Status | 010 00 |
| | 010 01 |
| Gun DSTB Mode, A/A | 010 00 |
| | 010 01 |
| Gun Fire Rate | 010 00 |
| | 010 01 |
| Gun/Rocket Reticle | 010 00 |
| | 010 01 |
| Gun RDY | 010 00 |
| | 010 01 |
| Gun R-MAX | 007 00 |
| | 007 01 |

| Subject | Work Package |
|--|-----------------|
| Gun Rounds Remaining | 010 00 |
| ..... | 010 01 |
| Gun Rounds/Rockets Remaining | 007 00 |
| ..... | 007 01 |
| H + LKD | 010 00 |
| ..... | 010 01 |
| H + TSN | 010 00 |
| ..... | 010 01 |
| H + ULK | 010 00 |
| ..... | 010 01 |
| H - OFF | 011 00 |
| HARM | 007 00 |
| ..... | 007 01 |
| HARM Class/Type Pushbutton (Class) | 011 00 |
| HARM Legend/Mode | 011 00 |
| HARM Minimum Range Cue | 007 00 |
| ..... | 007 01 |
| HARM Mode | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| HARM OVRD Option | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| HARM/PLBK/Override Cue | 007 00 |
| ..... | 007 01 |
| HARM PU | 007 00 |
| ..... | 007 01 |
| HARM Pullup Release Cue | 007 00 |
| ..... | 007 01 |
| HARM Scan/Class Lines and Class Activity | 011 00 |
| HARM Self-Protect Pullback Indication | 010 00 |
| ..... | 010 01 |
| HARM Station Number | 011 00 |
| HARM Title Data Character (Selected Class) | 011 00 |
| HARM Title Data Character (Selected Type) | 011 00 |
| HARM TOO Mode Cue | 007 00 |
| ..... | 007 01 |
| HDG/COMP | 009 00 |
| ..... | 009 01 |
| HDG/DG | 009 00 |
| ..... | 009 01 |
| HDG/SLV | 009 00 |
| ..... | 009 01 |
| HDG, CV | 009 00 |
| ..... | 009 01 |
| Heading | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| Heading Command | 007 00 |
| ..... | 007 01 |
| Heading Pointer, Command | 009 00 |
| ..... | 009 01 |
| Heading Scale Caret | 007 00 |

| Subject | Work Package |
|------------------------|-----------------|
| Heading Select | 007 01 |
| Heading Slew | 009 00 |
| Head-Up Display Format | 009 01 |
| HI | 009 00 |
| HI Display Symbology | 009 01 |
| HITS | 007 00 |
| Horizon Line | 007 01 |
| Hot Gun Cross | 008 00 |
| HP | 008 01 |
| HRM | 007 00 |
| HRM OVRD | 007 01 |
| HRM RNG | 007 01 |
| HSEL | 011 00 |
| HSI | 011 00 |
| HSI Symbology | 009 00 |
| HT | 009 01 |
| HT Settings | 010 00 |
| HUD Data Format | 010 01 |
| HUD EW | 007 00 |
| HUD Scan Option | 007 01 |
| HUD Window Format | 009 00 |
| HUNG | 009 01 |
| ID | 013 00 |
| IFA | 007 00 |
| ILS | 007 01 |

| Subject | Work Package |
|---|-----------------|
| ILS Steering Symbology | 009 01 |
| ..... | 007 00 |
| ..... | 007 01 |
| Impact Line | 007 00 |
| ..... | 007 01 |
| Impact Point, Continuously Computed | 007 00 |
| ..... | 007 01 |
| In Range Cue | 007 00 |
| ..... | 007 01 |
| IN RNG | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| In-Video Cursor | 008 00 |
| ..... | 008 01 |
| Inhibit Envelope Indication | 010 00 |
| ..... | 010 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| INS | 015 00 |
| INS Alignment Symbology | 009 00 |
| ..... | 009 01 |
| INS CK | 009 00 |
| ..... | 009 01 |
| INST | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| INTL | 008 00 |
| ..... | 008 01 |
| Invalid X, LDT Code | 013 00 |
| JAM Code | 007 00 |
| ..... | 007 01 |
| JAM Code (A1-F18AC-FRM-010/(C)) | |
| Jam Cue (A1-F18AC-FRM-010/(C)) | |
| Jam Strobes (A1-F18AC-FRM-010/(C)) | |
| L | 009 00 |
| ..... | 009 01 |
| L and S Target | 008 00 |
| ..... | 008 01 |
| L ARM | 007 00 |
| ..... | 007 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| L DL | 010 00 |
| ..... | 010 01 |
| L SEL | 010 00 |
| ..... | 010 01 |
| LAND | 009 00 |
| ..... | 009 01 |
| Land Threat List | 010 00 |
| ..... | 010 01 |

| Subject | Work Package |
|---|-----------------|
| LASER | 010 00 |
| ..... | 010 01 |
| Laser ARM/Firing Status | 012 00 |
| ..... | 012 01 |
| Laser Code Digits 1-4 | 011 00 |
| Laser Operating Code | 011 00 |
| Launch Constraint Circle | 011 00 |
| LDT | 013 00 |
| LDT Azimuth Digits | 013 00 |
| LDT Azimuth Digits and Direction | 013 00 |
| LDT Azimuth Direction | 013 00 |
| LDT Code Digits 1-4 | 013 00 |
| LDT Code Invalid X | 013 00 |
| LDT Elevation Digits | 013 00 |
| LDT Not Ready Indication | 013 00 |
| LDT TDC Symbol | 013 00 |
| LDT Track Symbol | 007 00 |
| ..... | 007 01 |
| Left Out of Field Arrow | 011 00 |
| Level Adjustment Value | 012 00 |
| ..... | 012 01 |
| LIMIT | 011 00 |
| ..... | 013 00 |
| LIMIT and Depression Limit Digits | 013 00 |
| LKD | 010 00 |
| ..... | 010 01 |
| LND CHK | 014 00 |
| LO | 008 00 |
| ..... | 008 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| LOAD | 010 00 |
| ..... | 010 01 |
| LOFT | 007 00 |
| ..... | 007 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| LOS | 007 00 |
| ..... | 007 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| LOST | 007 00 |
| ..... | 007 01 |
| LST | 011 00 |
| ..... | 012 00 |
| ..... | 012 01 |
| ..... | 013 00 |
| LST Designation Cue | 007 00 |
| ..... | 007 01 |
| LST Mode Cue | 008 00 |
| ..... | 008 01 |
| LTWS | 008 00 |
| ..... | 008 01 |
| Lubber Line | 009 00 |

| Subject | Work Package |
|--|-----------------|
| LVL Adjustment | 009 01 |
| | 012 00 |
| | 012 01 |
| L4MAP | 009 00 |
| | 009 01 |
| Mach | 007 00 |
| | 007 01 |
| | 008 00 |
| | 008 01 |
| Mach Number | 012 00 |
| | 012 01 |
| Magnetic Heading Pointer (Lubber Line) | 009 00 |
| | 009 01 |
| MAN | 007 00 |
| | 007 01 |
| | 008 00 |
| | 008 01 |
| | 010 00 |
| | 010 01 |
| | 011 00 |
| MAN Option | 009 00 |
| | 009 01 |
| MANUAL | 013 00 |
| Manual File Data Box | 011 00 |
| Manual File Invalid X | 011 00 |
| Manual File Left/Right Arrow | 011 00 |
| Manual File Target Data | 011 00 |
| Manual File Up/Down Arrow | 011 00 |
| MAP | 008 00 |
| | 008 01 |
| MAP Indicator | 011 00 |
| Mark Option | 009 00 |
| | 009 01 |
| Master Arm Cue | 007 00 |
| | 007 01 |
| | 008 00 |
| | 008 01 |
| MAV | 007 00 |
| | 007 01 |
| | 011 00 |
| Maverick CAGED/UNCAGED Notice | 011 00 |
| Maverick LOS | 007 00 |
| | 007 01 |
| MAX Nz | 016 00 |
| | 016 01 |
| Maximum Normal Acceleration | 007 00 |
| | 007 01 |
| Mechanical Fuzing Option | 010 00 |
| | 010 01 |
| MED | 008 00 |
| | 008 01 |
| MEM | 008 00 |
| | 008 01 |
| | 012 00 |

| Subject | Work Package |
|---|-----------------|
| Memory Cue | 012 01 |
| | 008 00 |
| | 008 01 |
| MENU | 016 00 |
| | 016 01 |
| Menu Displays | 016 00 |
| | 016 01 |
| Memory Time | 008 00 |
| | 008 01 |
| MFUZ | 010 00 |
| | 010 01 |
| MIN, MIN L, MIN R | 010 00 |
| | 010 01 |
| Missile Axis Position (MAP) Indicator | 011 00 |
| Missile Time of Flight | 007 00 |
| | 007 01 |
| | 008 00 |
| | 008 01 |
| MN FILE | 011 00 |
| MODE | 010 00 |
| | 010 01 |
| Mode Fail X | 008 00 |
| | 008 01 |
| Mode Independent HUD Symbology | 007 00 |
| | 007 01 |
| MODE 1 | 014 00 |
| MODE 2 | 014 00 |
| Mode, A/G | 008 00 |
| | 008 01 |
| Mode, A/G Delivery | 007 00 |
| | 007 01 |
| MV TGT | 012 00 |
| | 012 01 |
| M 50 | 010 00 |
| | 010 01 |
| N/T | 010 00 |
| | 010 01 |
| NAR | 012 00 |
| | 012 01 |
| NAV or A/G Command Heading | 007 00 |
| | 007 01 |
| NAV Mode HUD Symbology | 007 00 |
| | 007 01 |
| NAVDSG/O/S | 009 00 |
| | 009 01 |
| NCTR | 008 00 |
| | 008 01 |
| NCTR (A1-F18AC-FRM-010/(C)) | |
| NCTR Data Set | 009 00 |
| | 009 01 |
| NCTR ID Legend (A1-F18AC-FRM-010/(C)) | |
| NCTR Legend | 009 00 |
| | 009 01 |
| NCTR Radar Target Symbol (A1-F18AC-FRM-010/(C)) | |

| Subject | Work Package |
|-----------------------------------|-----------------|
| Normal Acceleration | 007 00 |
| ..... | 007 01 |
| Normalized In-Range Display | 007 00 |
| ..... | 007 01 |
| NOSE | 010 00 |
| ..... | 010 01 |
| Nosewheel Steering Cue | 007 00 |
| ..... | 007 01 |
| NOT CMD | 014 00 |
| Not Ready Indication, CAM | 013 00 |
| Not Ready Indication, LDT | 013 00 |
| Number One Priority Target | 008 00 |
| ..... | 008 01 |
| Number Two Priority Target | 008 00 |
| ..... | 008 01 |
| NWS | 007 00 |
| ..... | 007 01 |
| NWS HI | 007 00 |
| ..... | 007 01 |
| O/S Grid Characters | 017 00 |
| ..... | 017 01 |
| O/S/NAVDSG | 009 00 |
| ..... | 009 01 |
| O/S Position | 017 00 |
| ..... | 017 01 |
| OAP | 007 00 |
| ..... | 007 01 |
| OFF | 010 00 |
| ..... | 010 01 |
| OFF (RF) | 011 00 |
| Offset Reticle | 012 00 |
| ..... | 012 01 |
| ON (RF) | 011 00 |
| Operating Condition | 008 00 |
| ..... | 008 01 |
| OPR | 008 00 |
| ..... | 008 01 |
| Optimum Antenna Elevation | 008 00 |
| ..... | 008 01 |
| OVRHT | 008 00 |
| ..... | 008 01 |
| PAGE Pushbutton Legend | 011 00 |
| Passive Ranging Cues | 008 00 |
| ..... | 008 01 |
| PB | 011 00 |
| PDI | 008 00 |
| ..... | 008 01 |
| Peak Best Release Cue | 007 00 |
| ..... | 007 01 |
| Peak Maximum Release Cue | 007 00 |
| ..... | 007 01 |
| Peak Minimum Release Cue | 007 00 |
| ..... | 007 01 |
| PEN FAN | 008 00 |

| Subject | Work Package |
|------------------------------------|-----------------|
| PGU | 008 01 |
| Pitch Ladder | 010 00 |
| PLBK | 010 01 |
| Pod Channel Selected | 007 00 |
| Pod Status Indicator | 007 01 |
| PODVID | 011 00 |
| Pointer, Aspect Angle | 011 00 |
| POS/INS | 008 00 |
| POST LNCH DISPLAY | 008 01 |
| Position Error | 009 00 |
| Position Option Select | 009 01 |
| Pre and Post Launch Time of Flight | 011 00 |
| PRE LNCH DISPLAY | 009 00 |
| Present Position/Align Coordinate | 009 01 |
| PRF | 008 00 |
| Priority Station Selected | 008 01 |
| Priority Station - SLAM | 011 00 |
| Priority Target (HARM) | 010 00 |
| Priority Target, Number One | 010 01 |
| Priority Target, Number Two | 008 00 |
| Priority Targets | 008 01 |
| PROG | 008 00 |
| PROG Number | 010 00 |
| PROG Select | 010 01 |
| Program Status | 010 00 |
| PULLUP | 010 01 |
| Pullup Cue | 011 00 |
| PVU | 007 00 |
| PWR | 007 01 |
| QUAL | 008 00 |
| R | 008 01 |
| | 011 00 |
| | 009 00 |
| | 009 01 |
| | 009 00 |

| Subject | Work Package |
|-----------------------------------|-----------------|
| R DL | 009 01 |
| R DL | 010 00 |
| R DL | 10 01 |
| R SEL | 010 00 |
| R SEL | 010 01 |
| R-AERO | 007 00 |
| R-AERO | 007 01 |
| R-MAX | 007 00 |
| R-MAX | 007 01 |
| R-MAX | 008 00 |
| R-MAX | 008 01 |
| R-MAX 1 | 007 00 |
| R-MAX 1 | 007 01 |
| R-MAX 1 | 008 00 |
| R-MAX 1 | 008 01 |
| R-MAX 2 | 008 00 |
| R-MAX 2 | 008 01 |
| R-MAX 2 | 008 01 |
| R-MIN | 007 00 |
| R-MIN | 007 01 |
| R-MIN | 008 00 |
| R-MIN | 008 01 |
| R-No Escape | 007 00 |
| R-No Escape | 007 01 |
| RACK | 010 00 |
| RACK | 010 01 |
| Rack ID Character (Diamond) | 010 00 |
| Rack ID Character (Diamond) | 010 01 |
| Radar Acquisition Mode | 007 00 |
| Radar Acquisition Mode | 007 01 |
| Radar Acquisition Mode | 008 00 |
| Radar Acquisition Mode | 008 01 |
| Radar Display Symbology | 008 00 |
| Radar Display Symbology | 008 01 |
| Radar Range Scale | 008 00 |
| Radar Range Scale | 008 01 |
| RAID | 008 00 |
| RAID | 008 01 |
| RAID Cue | 008 00 |
| RAID Cue | 008 01 |
| RAID Range | 008 00 |
| RAID Range | 008 01 |
| RAID Target | 008 00 |
| RAID Target | 008 01 |
| Range | 008 00 |
| Range | 008 01 |
| Range Bar Tab | 007 00 |
| Range Bar Tab | 007 01 |
| Range Decrement | 008 00 |
| Range Decrement | 008 01 |
| Range Increment | 008 00 |
| Range Increment | 008 01 |
| Range Rate | 008 00 |

| Subject | Work Package |
|-----------------------------------|-----------------|
| ..... | 008 01 |
| ..... | 007 00 |
| ..... | 007 01 |
| Range Scale Radar | 008 00 |
| ..... | 008 01 |
| Range Units | 013 00 |
| Range, TACAN | 007 00 |
| ..... | 007 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| Range, Target | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| Range, Waypoint | 008 00 |
| ..... | 008 01 |
| Range/Azimuth Grid | 008 00 |
| ..... | 008 01 |
| Range/Velocity Grid | 008 00 |
| ..... | 008 01 |
| RAW Hit Targets | 008 00 |
| ..... | 008 01 |
| RDY | 007 00 |
| ..... | 007 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| RDY (Gun) | 010 00 |
| ..... | 010 01 |
| REJ (A1-F18AC-FRM-010/(C)) | |
| Release Cue | 007 00 |
| ..... | 007 01 |
| Remaining Rockets | 007 00 |
| ..... | 007 01 |
| RET | 010 00 |
| ..... | 010 01 |
| Reticle, A/G | 007 00 |
| ..... | 007 01 |
| Reticle Depression Numerics | 007 00 |
| ..... | 007 01 |
| Reticle, Gun | 007 00 |
| ..... | 007 01 |
| Reticle, Rockets/Gun | 007 00 |
| ..... | 007 01 |
| Reticle Stadiametric | 007 00 |
| ..... | 007 01 |
| RF Channel | 008 00 |
| ..... | 008 01 |
| RF Channel Fail X | 008 00 |
| ..... | 008 01 |
| RF OFF | 011 00 |
| RF ON | 011 00 |

| Subject | Work Package |
|--|-----------------|
| Right Out of Field Arrow | 011 00 |
| RMAX | 010 00 |
| ..... | 010 01 |
| RNDS | 010 00 |
| ..... | 010 01 |
| RNG | 010 00 |
| ..... | 010 01 |
| Rocket Delivery/Fire Sequence Options | 010 00 |
| ..... | 010 01 |
| Rocket Fire Sequence/Delivery Options | 010 00 |
| ..... | 010 01 |
| Rockets/Gun Reticle | 007 00 |
| ..... | 007 01 |
| Rockets Remaining | 007 00 |
| ..... | 007 01 |
| ROLL R or ROLL L | 010 00 |
| ..... | 010 01 |
| Rounds Remaining, Gun | 007 00 |
| ..... | 007 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| RRSLV | 012 00 |
| ..... | 012 01 |
| RSET | 008 00 |
| ..... | 008 01 |
| ..... | 011 00 |
| RTCL | 012 00 |
| ..... | 012 01 |
| RTS XXXX | 008 00 |
| ..... | 008 01 |
| S MODE | 010 00 |
| ..... | 010 01 |
| SAF DSBL | 010 00 |
| ..... | 010 01 |
| SAFE/ARM/SIM | 010 00 |
| ..... | 010 01 |
| SAL | 010 00 |
| ..... | 010 01 |
| Scale, Angle of Attack | 007 00 |
| ..... | 007 01 |
| Scale, Bank | 007 00 |
| ..... | 007 01 |
| Scale, Heading | 007 00 |
| ..... | 007 01 |
| Scale, Radar Range | 008 00 |
| ..... | 008 01 |
| SCAN | 011 00 |
| SCAN Center AUTO/BIAS/MAN | 008 00 |
| ..... | 008 01 |
| Scan Center Range Digits | 013 00 |
| Scan Center Range Digits and Range Units | 013 00 |
| SCAN RAID | 008 00 |
| ..... | 008 01 |
| Scan Option WIDE/HUD | 013 00 |

| Subject | Work Package |
|---------------------------|-----------------|
| Scan, Azimuth | 008 00 |
| | 008 01 |
| SCL | 009 00 |
| | 009 01 |
| SDEGD | 010 00 |
| | 010 01 |
| SEA | 008 00 |
| | 008 01 |
| | 009 00 |
| | 009 01 |
| Sea Threat List | 010 00 |
| | 010 01 |
| SEL | 010 00 |
| | 010 01 |
| Selected Waypoint | 008 00 |
| | 008 01 |
| Selected Weapon Status | 011 00 |
| SENSORS | 009 00 |
| | 009 01 |
| SEQUFC | 009 00 |
| | 009 01 |
| SEQ1 | 009 00 |
| | 009 01 |
| SEQ2 | 009 00 |
| | 009 01 |
| SEQ3 | 009 00 |
| | 009 01 |
| SET | 008 00 |
| | 008 01 |
| SGL | 010 00 |
| | 010 01 |
| SH | 007 00 |
| | 007 01 |
| SH Legend | 011 00 |
| SHOOT | 007 00 |
| | 007 01 |
| | 008 00 |
| | 008 01 |
| Shrike Selected | 007 00 |
| | 007 01 |
| | 010 00 |
| | 010 01 |
| Shrike Station Number | 011 00 |
| Sidewinder Missile Symbol | 010 00 |
| | 010 01 |
| Sidewinder R-MIN | 007 00 |
| | 007 01 |
| Sidewinder Seeker Circle | 007 00 |
| | 007 01 |
| SIL | 008 00 |
| | 008 01 |
| SIM | 010 00 |
| | 010 01 |
| | 011 00 |

| Subject | Work Package |
|---|-----------------|
| SIM/ARM/SAFE | 010 00 |
| ..... | 010 01 |
| SLAM IN-VIDEO | 011 00 |
| SLAM Narrow Field of View Window | 011 00 |
| Slave Mode | 011 00 |
| Slew, Heading | 009 00 |
| ..... | 009 01 |
| SLV | 009 00 |
| ..... | 009 01 |
| SMS INV/EST | 016 00 |
| ..... | 016 01 |
| SP Legend | 011 00 |
| SP TEST | 010 00 |
| ..... | 010 01 |
| Sparrow MAX Seeker Range | 008 00 |
| ..... | 008 01 |
| Sparrow Missile Symbols, Stations 2, 4, 6, and 8 | 010 00 |
| ..... | 010 01 |
| Sparrow Untuned X | 010 00 |
| ..... | 010 01 |
| SPD, CV | 009 00 |
| ..... | 009 01 |
| Speed Gate Option | 008 00 |
| ..... | 008 01 |
| Speed, Aircraft | 009 00 |
| ..... | 009 01 |
| Spheroid Option | 017 00 |
| ..... | 017 01 |
| SPOT | 008 00 |
| ..... | 008 01 |
| SPRD | 011 00 |
| Square Identification Grid | 017 00 |
| ..... | 017 01 |
| Stabilization Cue | 008 00 |
| ..... | 008 01 |
| STAB POS | 016 00 |
| ..... | 016 01 |
| Stadiametric Reticle | 007 00 |
| ..... | 007 01 |
| STANDBY | 016 00 |
| ..... | 016 01 |
| Station Select Indication | 011 00 |
| Stations 2, 3, 4, 6, 7, 8 Medium Missile Symbol | 010 00 |
| ..... | 010 01 |
| Stations Selected, Priority | 011 00 |
| Stations 1 Thru 9 Status Characters | 010 00 |
| ..... | 010 01 |
| Stations 1 Thru 9 Store Characters | 010 00 |
| ..... | 010 01 |
| Stations 1, 2, 8, and 9 Sidewinder Missile Symbol | 010 00 |
| ..... | 010 01 |
| Stations 2, 4, 6, and 8 Sparrow Missile Symbols | 010 00 |
| ..... | 010 01 |
| Stations 2, 4, 6, and 8 Sparrow Untuned X | 010 00 |

| Subject | Work Package |
|---|-----------------|
| ..... | 010 01 |
| Status Characters Stations 1 Thru 9 | 010 00 |
| ..... | 010 01 |
| Status, Program | 010 00 |
| ..... | 010 01 |
| STBY | 008 00 |
| ..... | 008 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 015 00 |
| STD HDG | 009 00 |
| ..... | 009 01 |
| Steering, Data Link | 007 00 |
| ..... | 007 01 |
| Steering Dot | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| Steering, ILS | 007 00 |
| ..... | 007 01 |
| Steering Line, Azimuth | 007 00 |
| ..... | 007 01 |
| Steering Line, Elevation | 007 00 |
| ..... | 007 01 |
| Steering, TACAN | 007 00 |
| ..... | 007 01 |
| Steering, Waypoint | 007 00 |
| ..... | 007 01 |
| STEP | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| Store Characters | 010 00 |
| ..... | 010 01 |
| Store Characters, Stations 1 Thru 9 | 010 00 |
| ..... | 010 01 |
| Store Symbology | |
| A/A | 010 00 |
| ..... | 010 01 |
| A/G | 010 00 |
| ..... | 010 01 |
| STT Target | 008 00 |
| ..... | 008 01 |
| SURF | 008 00 |
| ..... | 008 01 |
| SXXX | 010 00 |
| ..... | 010 01 |
| SYNC | 009 00 |
| ..... | 009 01 |
| T/C | 014 00 |
| TA | 008 00 |
| ..... | 008 01 |
| TACAN Bearing | 009 00 |
| ..... | 009 01 |
| TACAN Bearing Tail | 009 00 |

| Subject | Work Package |
|---|-----------------|
| TACAN Data | 009 01 |
| TACAN Digital Range and Bearing | 009 00 |
| TACAN Pointer | 009 01 |
| TACAN Range | 009 00 |
| TACAN Station Ident | 009 01 |
| TACAN Station Symbol | 009 01 |
| TACAN Steering | 009 00 |
| TACAN Time to Go | 009 01 |
| TAIL | 007 00 |
| Target Aging | 009 01 |
| Target Burnthrough (A1-F18AC-FRM-010/(C)) | 007 00 |
| Target Course and Speed | 007 01 |
| Target Designator | 009 00 |
| Target Mach | 009 01 |
| Target Number | 008 00 |
| Target Range | 008 01 |
| Target Situation Symbol | 011 00 |
| Target, A/A | 007 00 |
| Target, A/G | 007 01 |
| Target Filed | 008 00 |
| Target, L and S | 008 01 |
| Target, Priority | 008 00 |
| Targets, Unfiled | 008 01 |
| TAS | 008 00 |
| TCN | 010 00 |
| | 010 01 |
| | 007 00 |

| Subject | Work Package |
|---|-----------------|
| ..... | 007 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| TDC Diamond | 008 00 |
| ..... | 008 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| TDC Priority Symbol | 007 00 |
| ..... | 007 01 |
| TDC Symbol, FLIR | 012 00 |
| ..... | 012 01 |
| TDC Symbol, LDT | 013 00 |
| TDC Symbol, TV Weapon | 011 00 |
| TEST | 008 00 |
| ..... | 008 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 014 00 |
| TGT | 007 00 |
| ..... | 007 01 |
| THP | 007 00 |
| ..... | 007 01 |
| TILT | 007 00 |
| ..... | 007 01 |
| ..... | 014 00 |
| Time (Align) | 009 00 |
| ..... | 009 01 |
| Time Display | 007 00 |
| ..... | 007 01 |
| ..... | 009 00 |
| ..... | 009 01 |
| Time of DAY (TOD) | 009 00 |
| ..... | 009 01 |
| Time of Flight, Pre and Post Launch | 010 00 |
| ..... | 010 01 |
| Time of Flight, Missile | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| Time to Go | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| Time to Go to Maximum Range | 007 00 |
| ..... | 007 01 |
| Time to Go, CCIP | 007 00 |
| ..... | 007 01 |
| Time to Go TACAN | 009 00 |
| ..... | 009 01 |
| TIMEUFC | 009 00 |
| ..... | 009 01 |
| TIMING | 007 00 |

| Subject | Work Package |
|---|-----------------|
| ..... | 007 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| TOF | 010 00 |
| ..... | 010 01 |
| TOM | 010 00 |
| ..... | 010 01 |
| TONE | 010 00 |
| ..... | 010 01 |
| TOO | 011 00 |
| TOO Target Modifiers | 011 00 |
| TOT | 009 00 |
| ..... | 009 01 |
| TRACK | 008 00 |
| ..... | 008 01 |
| ..... | 011 00 |
| ..... | 012 00 |
| ..... | 012 01 |
| ..... | 013 00 |
| Track Gate | 012 00 |
| ..... | 012 01 |
| Track Memory Time | 008 00 |
| ..... | 008 01 |
| Track/Memory Cue | 008 00 |
| ..... | 008 01 |
| Tracked Target Heading | 008 00 |
| ..... | 008 01 |
| TRANS | 010 00 |
| ..... | 010 01 |
| TRIG | 012 00 |
| ..... | 012 01 |
| True Airspeed | 007 00 |
| ..... | 007 01 |
| TSN | 010 00 |
| ..... | 010 01 |
| TTG | 007 00 |
| ..... | 007 01 |
| TTMR | 007 00 |
| ..... | 007 01 |
| Turn Indicator | 015 00 |
| TV Video Weapon Display Symbology | 011 00 |
| TV Weapon Status | 011 00 |
| TV Weapon TDC Symbol | 011 00 |
| TWS | 008 00 |
| ..... | 008 01 |
| TYPE Pushbutton | 011 00 |
| UFC | 009 00 |
| ..... | 009 01 |
| ..... | 010 00 |
| ..... | 010 01 |
| ..... | 011 00 |
| ..... | 012 00 |
| ..... | 012 01 |

| Subject | Work Package |
|---|-----------------|
| ..... | 013 00 |
| ..... | 017 00 |
| ..... | 017 01 |
| ULK | 010 00 |
| ..... | 010 01 |
| UNCAGED/CAGED | 011 00 |
| Unfiled Target | 008 00 |
| ..... | 008 01 |
| Universal Transverse Mercator Symbology | 017 00 |
| ..... | 017 01 |
| UNLK | 010 00 |
| ..... | 010 01 |
| UNLKD | 010 00 |
| ..... | 010 01 |
| Update Options | 009 00 |
| ..... | 009 01 |
| UPDT | 009 00 |
| ..... | 009 01 |
| UTM FAIL | 014 00 |
| VACQ Bars | 007 00 |
| ..... | 007 01 |
| VEC | 009 00 |
| ..... | 009 01 |
| Velocity Search Scale | 008 00 |
| ..... | 008 01 |
| Velocity Vector | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| ..... | 012 00 |
| ..... | 012 01 |
| Velocity Vector and Horizon Line | 012 00 |
| ..... | 012 01 |
| Velocity Vector, Ghost | 007 00 |
| ..... | 007 01 |
| Vertical Velocity | 007 00 |
| ..... | 007 01 |
| Video Crosshairs | 011 00 |
| Video Gain Setting | 008 00 |
| ..... | 008 01 |
| VOICE | 014 00 |
| VT | 010 00 |
| ..... | 010 01 |
| VT1 | 010 00 |
| ..... | 010 01 |
| VT2 | 010 00 |
| ..... | 010 01 |
| VTR | 011 00 |
| VT Option Pushbutton | 011 00 |
| VVSLV | 012 00 |
| ..... | 012 01 |
| VVSLV/RRSLV | 012 00 |
| ..... | 012 01 |
| W/O | 014 00 |

| Subject | Work Package |
|--|--------------|
| WACQ | 007 00 |
| ..... | 007 01 |
| ..... | 008 00 |
| ..... | 008 01 |
| WACQ Box | 007 00 |
| ..... | 007 01 |
| WACQ Grid | 007 00 |
| ..... | 007 01 |
| Walleye Data Link Pod Symbology | 011 00 |
| Walleye 1 ER/DL and Walleye Data Link Pod Combined Symbology | 011 00 |
| Walleye 1 ER/DL Symbology | 011 00 |
| Walleye 1 Symbology | 011 00 |
| WARN ALT | 009 00 |
| ..... | 009 01 |
| Waterline | 007 00 |
| ..... | 007 01 |
| Waveoff, Data Link | 007 00 |
| ..... | 007 01 |
| Waypoint Bearing Tail | 009 00 |
| ..... | 009 01 |
| Waypoint Digital Range and Bearing | 009 00 |
| ..... | 009 01 |
| Waypoint Pointer Bearing | 009 00 |
| ..... | 009 01 |
| Waypoint Range | 009 00 |
| ..... | 009 01 |
| Waypoint Sequence Selected | 009 00 |
| ..... | 009 01 |
| Waypoint Sequenced Display | 009 00 |
| ..... | 009 01 |
| Waypoint Situation Symbol | 009 00 |
| ..... | 009 01 |
| Waypoint Steering | 007 00 |
| ..... | 007 01 |
| Waypoint Target Bearing and Range | 008 00 |
| ..... | 008 01 |
| Waypoint/TACAN Decrement | 009 00 |
| ..... | 009 01 |
| Waypoint/TACAN Increment | 009 00 |
| ..... | 009 01 |
| Waypoint/TACAN Number | 009 00 |
| ..... | 009 01 |
| Waypoint Time to Go | 009 00 |
| ..... | 009 01 |
| WDEGD | 010 00 |
| ..... | 010 01 |
| WE | 007 00 |
| ..... | 007 01 |
| ..... | 011 00 |
| Weapon Count | 010 00 |
| ..... | 010 01 |
| Weapon Delivery Modes | 010 00 |
| ..... | 010 01 |
| Weapon Field of View | 007 00 |

A1-F18AC-FRM-000

Change 1

001 02

Page 30

| Subject | Work Package |
|--------------------------------------|-----------------|
| ..... | 007 01 |
| Weapon Status, TV | 011 00 |
| Weapon Type and Weapon Count | 007 00 |
| ..... | 007 01 |
| Weapon Type and Quantity | 008 00 |
| ..... | 008 01 |
| WE DSPLY | 016 00 |
| ..... | 016 01 |
| WEDL | 007 00 |
| ..... | 007 01 |
| ..... | 011 00 |
| WEDL DSPLY | 016 00 |
| ..... | 016 01 |
| WEPD | 011 00 |
| WHT | 012 00 |
| ..... | 012 01 |
| WIDE | 012 00 |
| ..... | 012 01 |
| WIDE Scan Option | 013 00 |
| WIDE/HUD Scan Option | 013 00 |
| WIDE/NAR | 012 00 |
| ..... | 012 01 |
| Wingform | 010 00 |
| ..... | 010 01 |
| WYPT | 007 00 |
| ..... | 007 01 |
| WYPT A/A | 009 00 |
| ..... | 009 01 |
| WYPT Data | 009 00 |
| ..... | 009 01 |
| WYPT/OAP/TGT | 009 00 |
| ..... | 009 01 |
| WYPTS | 009 00 |
| ..... | 009 01 |
| XMTR | 011 00 |
| Zenith/Nadir | 015 00 |
| 1B | 008 00 |
| ..... | 008 01 |
| 2B | 008 00 |
| ..... | 008 01 |
| 4B | 008 00 |
| ..... | 008 01 |
| 6B | 008 00 |
| ..... | 008 01 |
| 7F | 007 00 |
| ..... | 007 01 |
| 7M | 007 00 |
| ..... | 007 01 |
| 9L | 007 00 |
| ..... | 007 01 |
| 9M | 007 00 |
| ..... | 007 01 |
| 10 SEC | 014 00 |
| 20° Down Gimbal Angle Position | 011 00 |

INTRODUCTION
ORGANIZATIONAL MAINTENANCE
FAULT REPORTING MANUAL

This WP supersedes WP 002 00 dated, 1 August 1999.

1. PURPOSE.

2. This manual provides the data required by the technician to do testing and troubleshooting of the system.

3. REQUISITIONING AND DISTRIBUTION OF NAVAIR TECHNICAL PUBLICATIONS.

4. Procedures to be used by Naval activities and other Department of Defense activities requiring NAVAIR technical manuals are defined in NAVAIR 00-25-100.

5. MANUAL ISSUE DATE.

6. The date on the title page is the copy freeze date. No additions, deletions, or changes are made after the manual issue date except last minute safety of flight or required maintenance changes. Data collected after the manual issue date will be included in later changes or revisions of the manual.

7. EFFECTIVITIES.

8. Effectivity notes on manual title pages, work package title pages, and within a work package in-

dicating the aircraft or software program to which the data applies. If no effectivity note appears on the work package title page, the work package has the same effectivity as shown on the manual title page. The effectivity notes may use:

NOTE

Aircraft with model designator F/A-18B are the same type and model as TF/A-18A.

a. Type, model, and series

b. Bureau number (tail number)

c. Combination of type, model, series, and bureau numbers

d. Part number or serial number

e. Technical directive number

f. Configuration/identification number

9. The table below shows examples of effectivity notes and their meanings:

Effectivity Note Examples

| Effectivity Note | Definition |
|-------------------------|--|
| 160777 AND UP | Applicable to all F/A-18A, F/A-18B, F/A-18C and F/A-18D for bureau numbers listed. |
| F/A-18A, F/A-18B | Applicable to all F/A-18A and F/A-18B. |
| F/A-18C, F/A-18D | Applicable to all F/A-18C and F/A-18D. |
| F/A-18A | Applicable to all F/A-18A, but not F/A-18B, F/A-18C and F/A-18D. |

Effectivity Note Examples (Continued)

| Effectivity Note | Definition |
|--|--|
| F/A-18B | Applicable to all F/A-18B, but not F/A-18A, F/A-18C, and F/A-18D. |
| F/A-18C | Applicable to all F/A-18C, but not F/A-18A, F/A-18B, and F/A-18D. |
| F/A-18D | Applicable to all F/A-18D, but not F/A-18A, F/A-18B, and F/A-18C. |
| F/A-18A, F/A-18C | Applicable to all F/A-18A and F/A-18C, but not to F/A-18B and F/A-18D. |
| F/A-18B, F/A-18D | Applicable to all F/A-18B and F/A-18D, but not to F/A-18A and F/A-18C. |
| F/A-18A 160775, 160777 THRU 160782 | Only applicable to some bureau numbers of F/A-18A. Not applicable to any F/A-18B, even if a F/A-18B bureau number is within the numbers listed. |
| F/A-18C 163427, 163430 THRU 163456 | Only applicable to some bureau numbers of F/A-18C. Not applicable to any F/A-18D, even if a F/A-18D bureau number is within the numbers listed. |
| F/A-18B 160784 AND UP | Only applicable to some bureau numbers of F/A-18B. Not applicable to any F/A-18A, even if an F/A-18A bureau number is within the numbers listed. |
| F/A-18D 163434 THRU 163457 | Only applicable to some bureau numbers of F/A-18D. Not applicable to any F/A-18C, even if a F/A-18C bureau number is within the numbers listed. |
| 160775 THRU 160785 BEFORE F/A-18 AFC 772 | Applicable to F/A-18A and F/A-18B for bureau numbers listed, before modification by technical directive. |
| 161213 AND UP; ALSO 160775 THRU 160785 AFTER F/A-18 AFC 772 | Applicable to aircraft modified during production; also applicable when affected aircraft have been modified by technical directive. |
| 160775 THRU 160785; WHEN NO. 2 CONTROL PANEL P/N XXXX-X IS INSTALLED | Applicable to F/A-18A and F/A-18B for bureau numbers listed if panel P/N XXXX-X is installed. (Configuration before AVC). |
| 161213 AND UP; ALSO 160775 THRU 160785; WHEN NO. 2 CONTROL PANEL P/N XXXX-Y (AVC 102) IS INSTALLED | Applicable to aircraft modified during production; also applicable to aircraft components modified to the production configuration by technical directive. (Configuration after AVC). |
| P/N MBEU65101-9, MBEU65101-10 & MBEU65105-3 | Applicable to assemblies which are interchangeable between aircraft. |
| ENGINE NO. 215101 THRU 215109 | Applicable to assemblies which are interchangeable between aircraft, but configurations can not be identified by part number. |
| CONFIG/IDENT NUMBER 84A | The CONFIG/IDENT Number is the program load identification number which identifies the software program loaded in specific programmable units. Refer to A1-F18AC-SCM-000 for CONFIG/IDENT Number tables. |

10. TECHNICAL DIRECTIVES.

11. Technical directives are documents which direct the accomplishment, and recording of a retrofit configuration or inspection to delivered aircraft, or aircraft components.

12. AIRFRAME CHANGE (AFC) AND AIRBORNE TACTICAL SOFTWARE CHANGE (ASC).

Technical directives which change configuration of aircraft structure or equipment installation, i.e. AFC, will list aircraft bureau numbers in effectivity notes and show before and after the AFC. Technical directives which change configuration of operational flight programs (OFP), i.e. ASC, will list the OFP CONFIG/IDENT NUMBER in effectivity notes and show the latest two authorized OFP programs. See AFC and ASC effectivity examples in Effectivity Note Example Table.

13. AIRCRAFT COMPONENT CHANGES. Technical directives which change configuration of aircraft components, i.e. AAC, ACC, AVC, AYC, and PPC with list part numbers in the effectivities. See AVC effectivity examples in Effectivity Note Example table.

14. HISTORICAL RECORD/RECORD OF APPLICABLE TECHNICAL DIRECTIVES.

15. The technical directives affecting this manual are listed in the Record of Applicable Technical Directives of each affected work package. Because an ASC directs all aircraft be modified within 30 days, ASC's are not listed. When all affected aircraft are modified, the before configuration is removed from the manual, and the technical directive entry is removed from the Record of Applicable Technical Directives and entered in the Historical Record of Applicable Technical Records.

16. TECHNICAL PUBLICATIONS DEFICIENCY REPORT (TPDR).

17. The TPDR (OPNAV FORM 4790/66) is the form for reporting errors and suspected omissions in the technical manuals. Reporting procedures are in OPNAVINST 4790.2 SERIES.

18. QUALITY ASSURANCE PROCEDURES.

19. Procedures or parts of procedures which require quality assurance inspection are identified by the letters (QA) after the applicable steps. When (QA) is assigned to a step or a heading which is immediately followed by substeps, the inspection requirement is applicable to all substeps.

20. When doing maintenance in any area, a visual inspection of the area with be made for cracks, corrosion and security of component installation before securing the area for flight.

21. TEST PROCEDURES.

22. Test procedures are done as part of malfunction isolation, during periodic inspection, or when correct system operation is to be verified.

23. Satisfactory completion of test procedures verifies correct system operation. Do steps in sequence. When doing system test procedures, make sure:

- a. System Required Components identified in procedure are installed.
- b. Related Systems Required identified in procedure are operative.
- c. Steps are done in sequence.
- d. Results are as shown in Normal Indication column, or do Remedy for Abnormal Indication.
- e. Each malfunction is corrected before going to next step by repeating portion of test procedure which failed.

24. TROUBLESHOOTING.

25. TROUBLESHOOTING PROCEDURES. These procedures provide a series of steps with a NO-YES column. These steps lead to corrective action for the malfunction. Troubleshooting procedures list the data below for use as an aid when doing procedural steps:

- a. Reference to a system schematic.
- b. Reference to a component locator.

c. List of support equipment and materials required which will always be used in the procedure. Additional support equipment may be required.

d. An alphabetical list of components which could cause the malfunction.

26. Troubleshooting procedures (logic trees) are referenced from a test procedure Remedy for Abnormal Indication column or from Fault Reporting Manual. Logic trees are written assuming the logic below:

a. If doing a test procedure, all steps testing functions before the failed step had normal indication.

b. For an abnormal indication, only one malfunction exists.

c. All replacement components are ready for installation.

27. **CONTINUITY TESTING.** When doing continuity tests during troubleshooting, the items listed below must be tested, as applicable.

a. Loose electrical connectors and bent, broken, or recessed pins.

b. Continuity between specific pins per procedural step or system schematic.

c. Shorts between conductor and shield.

d. Shorts between conductor and surrounding pins on connectors.

e. Shield continuity per diagrams/system schematics.

28. **TROUBLESHOOTING BEYOND BIT/SYSTEM TESTING.** This is required when any of the conditions listed below exist:

a. Malfunction was not detected by Built-In Test (BIT).

b. Malfunction was not detected by a functional test procedure.

c. When a troubleshooting procedure did not correct the malfunction.

d. When a troubleshooting procedure does not exist.

29. When any of the conditions listed in paragraph 28 exist, troubleshooting procedure/logic must then be determined. Use steps listed below to aid in determining procedure/logic:

a. Use referenced system schematic or select applicable system schematic for malfunction. Use schematic for troubleshooting beyond BIT an analysis as listed below:

(1) Analyze interlace of system components. Determine logic wiring and/or components which may cause the malfunction. Determine when an interfacing component could cause the malfunction.

(2) When malfunction can be caused by mission computer system signal interface, do applicable steps below:

(a) Analyze mission computer system integrated functions. Use REF CODES on system schematics for aid when interpreting computer software logic.

(b) Memory inspect suspected Input/Output REF CODES (A1-F18AC-FIM-100).

b. Review VIDS/MAF (OPNAV 4790/60) in Aircraft Discrepancy Book for related malfunctions.

(1) Analyze system/related system maintenance codes reported by Nose Wheelwell Digital Display Indicator.

(2) Determine if aircraft components that have been replaced could cause malfunction.

(3) When a repeat malfunction exists, analyze previous maintenance action completed for the malfunction.

(a) When component replacement is/was done, analyze component history as listed:

1) Determine where component came from.

2) Determine previous history of component (when available).

3) Determine if similar malfunction occurred on another aircraft.

4) Determine if replaced component could be causing existing malfunction.

5) Determine if replacing component again would correct malfunction.

(b) Determine if any rigging or control procedures that have been done could cause the malfunction.

(c) Determine when rigging/boresight procedures should be done to verify system operation for malfunction.

30. TROUBLESHOOTING IMPROVEMENTS.

When a troubleshooting procedure did not correct a malfunction and it is determined that additional or new troubleshooting is required, submit Technical Publications Deficiency Report (TPDR) providing the information listed below:

a. Fault descriptor for A1-F18()-FRM-000.

b. Corrective action taken for malfunction.

c. Logic used to isolate malfunction.

d. Probable changes that could shorten troubleshooting time for malfunction.

31. DIAGRAMS.

32. System schematics are in A1-F18A()-()-500 series manuals.

33. ILLUSTRATED PARTS BREAKDOWN.

34. Each illustrated parts breakdown (IPB) in this manual has a parts list and illustration for the requisition, storage, authority for use and identification of parts. The illustration is integrated with, and supports, both the maintenance procedure and the parts list within each work package.

35. **PART NUMBER COLUMN.** Footnote symbols in the part number column are defined following the last part listed in each parts list (also see converted part numbers, this WP).

36. **INDENTION.** The first entry in the description column of each parts list is the figure title. This figure title identifies the parts list with the related maintenance procedure and is shown in the first indent. All parts data required to support the specific maintenance procedure is below the figure title in the second indent.

37. **COMMON NAMES.** The official nomenclature in the description column may not be the name commonly used for an item. If different from the official nomenclature, the common name is shown in parentheses in the description column immediately following the official nomenclature.

38. **COMMERCIAL AND GOVERNMENT ENTITY CODES.** Entity code or manufacturer's name and address are shown in the Description column in parentheses after the nomenclature for the item. These codes are per the Commercial and Government Entity (CAGE) Handbook H4/H8 Series. No code indicates the item is a government standard part.

39. **ATTACHING PARTS.** Attaching parts are identified by (AP) after the nomenclature of the item in the description column. Attaching parts are listed immediately following the part they attach.

40. **SPECIAL HANDLING.** Items requiring special handling such as liquid oxygen components, magnetic control items or on-board oxygen generating system (OBOGS) are identified by the acronym LOX for liquid oxygen, MAG for magnetic control and OXYGEN for on board oxygen generating system (OBOGS) in the Description column, at the extreme right side.

41. **CONVERTED PART NUMBERS.** Some part numbers appear in the Part Number column which are different than the manufacturer's part number. These are converted part numbers. The unconverted manufacturer's part number is shown in the Description column following the manufacturer's code. Always use the part number in the Part Number column when ordering parts. If an item is not available under the listing in the Part Number column, it may be ordered using the unconverted part number found in the Description column or by using the number found on the part. Examples of special characters as they may appear in the Part Number and Description columns are shown on the following page:

| Part Number Column | Description Column |
|--------------------|-----------------------|
| PORM | ± (Plus or Minus) |
| DEG | ° (Degree) |
| E | e (Lower case letter) |
| 2 | II (Roman Numeral) |
| 0.001 | .001 (Decimal) |

42. **SUPERSEDED PARTS.** Superseded part numbers have been removed from the Part Number column and placed in the Description column of the superseding part (for example supersedes 74A582090-1003). This indicates that the superseded part is usable if available through salvage, but should not be requisitioned or made.

43. **NEXT HIGHER ASSEMBLY.** Next higher assembly (NHA) data is not shown using indentation. Next higher procurable assembly (NHPA) data is shown for part numbers that have a procurable NHA. The NHPA and its assigned Source, Maintenance and Recoverability (SM&R) code are in parentheses as the last entry in the description column. Requisition the NHPA when the part listed in the Part Number column is not available from supply. The components of assemblies that required disassembly during removal from aircraft, are footnoted in the part number column.

44. **UNITS PER ASSEMBLY COLUMN (UPA).** This column lists the total number of each part required per assembly or subassembly and are not necessarily the total number used in the end item of equipment. The letters AR (As Required) are used for items such as shims when the requirement may vary.

45. **USABLE-ON CODES.** Applicable usable on codes are identified on the final sheet of each parts list. No entry in the Use On column indicates parts

are applicable to all configurations supported by this parts list.

46. **ALTERNATE OR EQUIVALENT PARTS.** An asterisk (*), in the Use On column, identifies alternate parts or equivalent parts that are interchangeable. When a letter code is followed by an asterisk in the Use On column, only the parts with the same letter code are interchangeable. An alternate part may be used when preferred part is not available. The asterisk is omitted for the preferred part(s). Equivalent parts are fully interchangeable. No equivalent part is preferred over another. All equivalent parts are identified by asterisks.

47. **SOURCE, MAINTENANCE AND RECOVERABILITY (SM&R) CODE COLUMN.** The codes used in this column are assigned per NAVAIRINST 4423.3 SERIES and NAVSUPINST 4423.14 SERIES which contain definitions. A dash (-) is shown in the SM&R code column when no code has been assigned. The Aviation Supply Office P2300 series publication is to be used for the most current SM&R Code assignment information if doubt exists as to the validity of any SM&R Code listed in an IPB. Refer to figure 1 for SM&R code explanations.

48. **PARTS LIST INDEX MANUAL, A1-F18AC-IPB-450.** This manual has a numerical index of part numbers and a reference designation index for use with aircraft organizational maintenance manuals. When reference designations or part numbers are known, the index locates specific maintenance instructions and parts data.

49. **NAVY (AN) STANDARD/COMMON NAME NOMENCLATURE.**

50. When an item has both Navy (AN) standard and common name nomenclature assigned, the common name nomenclature will be used in text and on illustrations. Full Navy (AN) standard nomenclature will be used in the Illustrated Parts Breakdown (IPB).

| SOURCE (D012) | | | MAINTENANCE | |
|------------------|----------------------------|---------------------------------------|--------------|----------------|
| 1st POSITION | | 2nd POSITION | USE (D013A) | REPAIR (D013B) |
| | | | 3rd POSITION | 4th POSITION |
| P | PROCURE | A REPLENISH | O | Z |
| | | B INSURANCE | | |
| | | C CURE-DATED | | |
| | | D INITIAL | F | B |
| | | E END ITEM GSE/STOCKED | | |
| | | F GSE/NOT STOCKED | | |
| K | REPAIR KIT COMPONENT | F ORG/IMA | L | O |
| | | D DEPOT | | |
| | | B BOTH KITS | | |
| M | MANUFACTURE | O ORG | D | F |
| | | F AFLOAT | | |
| | | H ASHORE | | |
| | | G BOTH | | |
| A | ASSEMBLE | D DEPOT | Z | D |
| | | A REQUEST NHA | | |
| X | MISC | B OBTAIN FROM SALVAGE OR ONE TIME BUY | Z | D |
| | | C DIAGRAMS-SCHEMATICS INSTALL DWGS. | | |
| | | | | |

| RECOVERABILITY (D013C) | | SERVICE OPTION (D012A) | |
|---------------------------|---|---------------------------|---|
| 5th POSITION | | 6th POSITION | |
| O | REPAIRABLE ITEM. CONDEMN AT ORGANIZATIONAL LEVEL. | 1 | APPLIES TO ENGINES ONLY. IDENTIFIES THE HIGHEST (1) TO |
| | | 2 | LOWEST (3) LEVEL OF MAINTENANCE WHICH CAN REPLACE (3RD |
| | | 3 | POSITION OF SMR CODE) THE ITEM. |
| F | REPAIRABLE ITEM CONDEMN AT INTERMEDIATE LEVEL INDICATED | 4 | SAME AS ABOVE. IN ADDITION, ITEM IS A FLR WITH A UNIT COST |
| | | 5 | OF OVER \$5000. THESE CODES ARE NO LONGER ASSIGNED TO NEW |
| | | 7 | NON-FAMILY RELATED ITEMS. |
| L | REPAIRABLE ITEM. CONDEMN AT SPECIALIZED INTERMEDIATE IMA | 6 | NORMALLY PROCURED AND STOCK NUMBERED BUT ORGANIC CAPABILITY EXISTS FOR EMERGENCY STOP-GAP REQUIREMENTS. |
| | | E | END-TO-END TEST REQUIRED BY IMA PRIOR TO BCM ACTION. |
| | | J | FLR OR CONSUMABLE ITEM. CHANGE 5th POSITION OF SMR CODE TO 'D' UNDER PICA/SICA. NAVAIR APPROVAL REQUIRED. |
| D | REPAIRABLE ITEM. CONDEMN AT DEPOT OR CONTRACTOR FACILITY | 8 | SAME AS 'J' ABOVE EXCEPT USED FOR ENGINES ONLY. APPLIES TO 2nd LEVEL OF IMA. |
| | | 9 | SAME AS 'J' ABOVE EXCEPT USED FOR ENGINES ONLY. APPLIES TO 3rd LEVEL OF IMA |
| A | SPECIAL HANDLING REQUIRED. CONTACT ITEM MANAGER FOR DISPOSAL INSTRUCTIONS | M | ITEM IS A FLR WITH A UNIT COST OF OVER \$5000. THIS CODE IS NO LONGER ASSIGNED TO NEW NON-FAMILY RELATED ITEMS. |
| | | N | ASSIGNED TO XB SOURCE CODE AND INDICATES ITEM IS PROCURED LOCALLY, NOT STOCKED IN THE SUPPLY SYSTEM. |
| | | T | ASSIGNED TO TRAINING DEVICES WITH SOURCE CODE OF 'PD'. INDICATES ITEM IS NOT A PROCURABLE SPARE. NSN IS ASSIGNED ONLY TO PERMIT VISIBILITY OR REPAIR PART RELATIONSHIP. |
| Z | NON-REPAIRABLE ITEM. CONDEMN AT LEVEL INDICATED IN 3rd POSITION | | |

Figure 1. SM&R Code Explanation

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****FAULT REPORTING/FAULT ISOLATION CONCEPT**

1. FAULT REPORTING, FAULT ISOLATION CONCEPT.

2. The fault reporting/fault isolation concept is a logical troubleshooting process which uses built-in test, functional tests, troubleshooting procedures, and system schematics to correct faults.

3. The concept assumes:

- a. All power faults will be repaired first.
- b. Digital Data Computers No. 1 And 2, Signal Data Recording System, and Digital Display Indicator faults are repaired before any maintenance requiring these systems is done.
- c. Only one malfunction existing for any one fault.
- d. Only those systems required for troubleshooting are operations.
- e. All switches, pushbuttons and circuit breakers are in the safe, off, or normal position unless stated otherwise in a testing/troubleshooting procedure.
- f. All troubleshooting starts with maintenance action for maintenance codes, when available.

4. When an in flight, before flight, after flight or during ground maintenance fault is noted, the fault reporting manual is used to begin the fault isolation process.

5. The fault isolation process is started by using one of the fault listings of which there are five categories:

a. Digital Display Indicator ID-2150/ASM-612, Maintenance Codes (WP003 00).

b. Warning Caution, Advisory, and Fault Indication Displays (WP004 00).

c. Fault Descriptor Listings (WP005 00).

d. Circuit Breaker Trips (WP006 00).

e. Display Symbolology (WP007 00 thru WP016 00).

6. Using the fault listings, this manual references other maintenance manuals based on the information available for a fault. This is accomplished by doing the steps listed in table 1, in sequence. If a particular step is not applicable, or does not correct the fault, go to the next step. If the fault is not listed in any of the categories in table 1 or is a recurring fault, troubleshooting beyond BIT or system testing must be performed.

7. TROUBLESHOOTING BEYOND BIT/SYSTEM TESTING. This is required when any of the conditions listed below exist:

- a. Malfunction was not detected by Built-In Test (BIT).
- b. Malfunction was not detected by a functional test procedure.
- c. When a troubleshooting procedure did not correct the malfunction.
- d. When a troubleshooting procedure does not exist.

8. When any of the conditions listed in paragraph 7 exist, troubleshooting procedure/logic must then be determined. Use steps listed below to aid in determining procedure/logic:

a. When a functional test exists for the malfunctioning system and the test has not been done previously, do the functional test.

b. Use referenced system schematic or select applicable system schematic for malfunction. Use schematic for troubleshooting beyond BIT analysis as listed below:

(1) Analyze interface of system components. Determine logic wiring and/or components which may

cause the malfunction. Determine when an Interfacing component could cause the malfunction.

(2) When malfunction can be caused by mission computer system signal interface, do applicable steps below:

(a) Analyze mission computer system integrated functions. Use system schematics for aid when interpreting computer software logic.

(b) Memory inspect suspected Input/Output REF CODES (A1-F18AC-FIM-100).

c. Review VIDS/MAF (OPNAV 4790/60) in aircraft Discrepancy Book for related malfunctions.

(1) Analyze system/related system maintenance codes reported by Digital Display Indicator ID-2150/ASM-612.

(2) Determine if aircraft components that have been replaced could cause malfunction.

(3) When a repeat malfunction exists, analyze previous maintenance action completed for the malfunction.

(a) When component replacement is/was done, analyze component history as listed:

1) Determine where component came from.

2) Determine previous history of component (when available).

3) Determine if similar malfunction occurred on another aircraft.

4) Determine if replaced component could be causing existing malfunction.

5) Determine if replacing component again would correct malfunction.

(b) Determine if any rigging or control procedures that have been done could cause the malfunction.

(c) Determine when rigging/boresight procedures should be done to verify system operation for malfunction.

9. TROUBLESHOOTING IMPROVEMENTS.

When a troubleshooting procedure did not correct a malfunction and it is determined that additional or new troubleshooting is required, submit Technical Publications Deficiency Report (TPDR) providing the information listed below:

a. Fault descriptor for A1-F18AC-FRM-000.

b. Corrective action taken for malfunction.

c. Logic used to isolate malfunction.

d. Probable changes that could shorten troubleshooting time for malfunction.

Table 1. Fault Categories

| Step | Category of Fault | Procedures to Identify Fault and Maintenance Action |
|------|--|---|
| 1 | MMP Code | Refer to WP003 00, table 1. Locate MMP code. Read and perform any flag note instructions associated with the MMP code. Perform maintenance action listed. |
| 2 | Warning, Caution, Advisory or Fault Displays | Refer to WP004 00 index. Locate table/figure number where fault was noted. Refer to table/figure and locate specific fault. Perform maintenance action listed. |
| 3 | Fault Descriptor | Refer to WP005 00 index. Locate table of system with fault. Refer to system fault table and identify fault that is related to reported fault. Perform maintenance action listed. |

Table 1. Fault Categories (Continued)

| Step | Category of Fault | Procedures to Identify Fault and Maintenance Action |
|------|-----------------------|---|
| 4 | Circuit Breaker Trips | Refer to WP006 00 index. Locate circuit breaker panel figure. Locate circuit breaker using circuit breaker zone number. Use referenced schematic or troubleshooting procedure to troubleshoot malfunction. |
| 5 | Display Symbology | Refer to WP001 02. Locate WP where symbology appears. Refer to index of WP listed. Locate symbol description. Perform maintenance action listed or use schematic listed to troubleshoot fault. |

10. DIGITAL DISPLAY INDICATOR ID 2150/ASM-612 MAINTENANCE CODES. (WP003 00)

The code, code description, related system, corrective maintenance action, and possible related indications are in this list.

11. Related indications specified for malfunctions which were detected by built-in test are not to be treated as separate malfunctions. They are considered corrected when the maintenance codes are cleared.

12. WARNING, CAUTION, ADVISORY, AND FAULT INDICATOR DISPLAYS. (WP004 00)

Each component with a warning, caution, or advisory is located and a description of the indication is provided. Included in the description is a schematic reference to use as an aid in troubleshooting, if required. Also provided is the location, maintenance action required, and related maintenance codes for all components having fault indicators.

13. FAULT DESCRIPTOR LISTING. (WP005 00)

This list has symptoms of malfunctions that do not have warnings, cautions, advisories, or maintenance codes.

14. **CIRCUIT BREAKER TRIPS.** The components with circuit breakers are listed with corrective maintenance references for the tripped circuit breaker (WP006 00).

15. DISPLAY SYMBOLOGY.

16. All display elements from each menu selectable display format are provided with illustration and description for each element.

17. Nomenclature, function, and availability data are provided for:

- a. HUD Display Symbology (WP007 00)
- b. Radar Display Symbology (WP008 00)
- e. HI Display Symbology (WP009 00)
- d. Stores Display Symbology (WP010 00)
- e. TV Video Weapon Display Symbology (WP011 00)
- f. FLIR Display Symbology (WP012 00)
- g. LDT/CAM Display Symbology (WP013 00)
- h. Link 4 Display Symbology (WP014 00)
- i. ADI Display Symbology (WP015 00)
- j. Miscellaneous Display Symbology (WP016 00)
- k. Universal Transverse Mercator Display Symbology (WP017 00)

18. With each display element may be a schematic reference which shows the development of the element.

19. TECHNICAL MANUAL CONCEPT FOR UNSCHEDULED MAINTENANCE.

20. Figure 1 provides a general view of the technical manual concept for unscheduled maintenance. The A1-F18AC-FRM-000, as shown in figure 1, is the manual that is to be used as the initial starting point for all unscheduled maintenance.

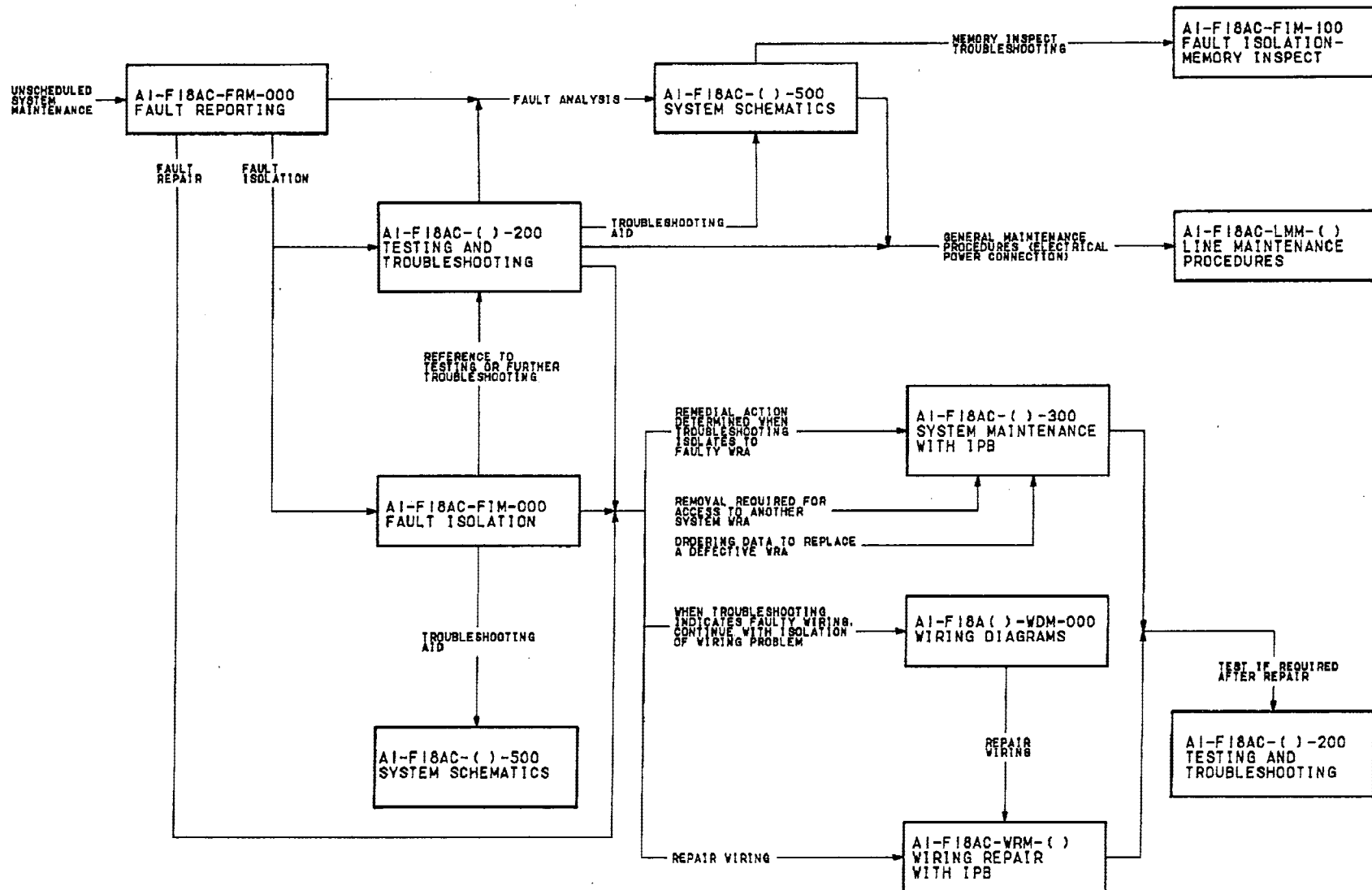


Figure 1. Unscheduled Maintenance Technical Manual Use

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****NOSE WHEELWELL DDI MAINTENANCE CODE LISTING****This WP supersedes WP003 00, dated 1 February 2001.**

Alphabetical Index

| Title | WP Number |
|---|----------------------|
| Nose Wheelwell DDI Maintenance Code Listing - F/A-18A AND F/A-18B BEFORE F/A-18 AFC 225, F/A-18 AFC 231, F/A-18 AFC 253, OR F/A-18 AFC 292 | WP003 01 |
| Nose Wheelwell DDI Maintenance Code Listing - F/A-18A AND F/A-18B AFTER F/A-18 AFC 225 AND F/A-18 AFC 231 | WP003 02 |
| Nose Wheelwell DDI Maintenance Code Listing - F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292; AND AFTER F/A-18 AFC 231 PART 2 OR PART 3 | WP003 03 |

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****NOSE WHEELWELL DDI MAINTENANCE CODE LISTING**

**EFFECTIVITY: F/A-18A AND F/A-18B BEFORE F/A-18 AFC 225,
F/A-18 AFC 231, F/A-18 AFC 253, OR F/A-18 AFC 292**

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|-----------------|
| Avionic Mux Bus 1 Fails | 2 |
| Avionic Mux Bus 2 Fails | 2 |
| Avionic Mux Bus 1 Fail Troubleshooting, Table 2 | 64 |
| Avionic Mux Bus 2 Fail Troubleshooting, Table 3 | 65 |
| Introduction | 1 |
| Maintenance Codes, Table 1 | 3 |
| Multiple Avionic Mux Bus Fail Troubleshooting | 2 |
| Avionic Mux Bus 1 Fails | 2 |
| Avionic Mux Bus 2 Fails | 2 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------------|-------------|---|-------------------------|----------------|
| F/A-18 AFC 56 | — | Fuel System Components Replacement and System Inspection (ECP 00158) | 1 Jun 86 | |
| F/A-18 AFC 70 | 1 Dec 89 | Incorporation of Motive Flow Boost Pump Pressure Switch (ECP 00158 R2) | 1 Jun 86 | |
| F/A-18 AFC-27 | 28 Apr 86 | Leading Edge Flap/Control Stick Changes (ECP MDA-F/A-18-00044) | 15 Jan 85 | |

1. INTRODUCTION.

2. All built in test (BIT) maintenance codes are identified in this work package. A description, the related system, and the recommended maintenance action are provided for each maintenance code.

3. When flagnote instructions are associated with a MMP code, the instructions are to be done before the recommended maintenance action.

4. Letters in the code column identify unique requirements for setting some codes:

M - Maintenance BIT

I - Initiated BIT

P - Periodic BIT

A - Weight Off Wheels

G - Weight On Wheels

F - Fluids Test

5. Some maintenance codes have entries in the possible related indication column. These also are fault indications provided by BIT and appear depending on the type of failure. The related indications are considered corrected when the maintenance codes are cleared.

6. All caution line indications occur with LH advisory and threat warning indicator panel MASTER CAUTION light on and master caution audio. See WP004 00 for descriptions of cautions.

7. MULTIPLE AVIONIC MUX BUS FAIL TROUBLESHOOTING.

NOTE

Before troubleshooting any MC1 and/or MC2 cautions make sure Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) is not disconnected or removed from the aircraft (see table 3 this WP).

8. When multiple avionic mux bus fail maintenance codes (001 thru 030) exist malfunction can be caused by defective avionic mux bus wiring. Using combinations of maintenance codes tables 2 and 3 provide maintenance actions for isolation of defective avionic mux bus wiring.

9. **AVIONIC MUX BUS 1 FAILS.** Table 2 lists the avionic mux bus 1 fail maintenance codes for the components listed below:

- a. Air Data Computer CP-1334/A (001)
- b. Armament Computer CP-1342/AVQ-9(V) (006)
- c. Command Launch Computer CP-1001/AWG (017)
- d. Control-Converter C-10382/A (004)

e. Digital Data Computer No. 2 (029)

f. Left Digital Display Indicator (002)

g. Receiver-Transmitter RT-1250()/ARC No. 1 (018)

h. Receiver-Transmitter RT-1250()/ARC No. 2 (019) - ON 161353 THRU 161528

i. Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) (014)

j. Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) (015)

k. Signal Data Recorder RO-508/ASM-612 (030)

10. When more than one avionic mux bus 1 fail maintenance code exists do the maintenance action (table 2) for that combination of codes. When an avionic mux bus fail maintenance code combination exists that is not listed in table 2, do the maintenance action prescribed in table 1 maintenance for each maintenance code.

11. **AVIONIC MUX BUS 2 FAILS.** Table 3 lists the avionic mux bus 2 fail maintenance codes for the components listed below:

- a. Computer-Power Supply CP-1325/APG-65 (010)
- b. Controller-Processor C-10661/AAS-38 (007)
- c. Digital Data Computer No. 2 (029)
- d. Inertial Navigation Set AN/ASN-130 (005)
- e. Mounting-Adapter MT-6082/ASQ-173 (012)
- f. Receiver-Transmitter RT-1250()/ARC No. 2 (019) - on 161702 and up
- g. Receiver-Transmitter-Processor RT-1379()/ASW (016)
- h. Right Digital Display Indicator (003)
- i. Countermeasures Computer CP-1293/ALR-67(V) - on 161925 and up (020)

12. When more than one avionic mux bus 2 fail maintenance code exists do the maintenance action (table 3) for that combination of codes. When an avionic mux bus fail maintenance code combination

exists that is not listed in table 3, do the maintenance action prescribed in table 1 for each maintenance code.

Table 1. Maintenance Codes

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 000 | Test value. | |
| 001 | <div>4</div> Air Data Computer CP-1334/A Avionic Mux Bus 1X/1Y fail (Air Data Computer System) <ul style="list-style-type: none"> Replace Air Data Computer CP-1334/A (A1-F18AC-560-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - NO GO |
| 002 | <div>4</div> Left Digital Display Indicator Avionic Mux Bus 1X/1Y fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Left Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator IP-1350/A <ul style="list-style-type: none"> ADV - BIT LDDI BIT status message - NO GO Left Digital Display Indicator <ul style="list-style-type: none"> STANDBY flashing |
| 003 | <div>5</div> Right Digital Display Indicator Avionic Mux Bus 2X/2Y fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Right Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator IP-1350/A <ul style="list-style-type: none"> ADV - BIT RDDI BIT status message - NO GO Right Digital Display Indicator <ul style="list-style-type: none"> STANDBY flashing |
| 004 | <div>4</div> Control-Converter C-10382/A Avionic Mux Bus 1X/1Y fail (Mission Computer System) <ul style="list-style-type: none"> Replace Control-Converter C-10382/A (A1-F18AC-741-300, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT CSC BIT status message - NO GO TCN BIT status message - DEGD IBS BIT status message - DEGD ICS BIT status message - DEGD ILS BIT status message - DEGD AUG BIT status message - DEGD BCN BIT status message - DEGD IFF BIT status message - DEGD RALT BIT status message - DEGD Caution line - CNI |
| 005 | <div>5</div> Inertial Navigation Set AN/ASN-130 () Avionic Mux Bus 2X/2Y fail (Inertial Navigation System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-730-200, WP016 00, table 1) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT INS BIT status message - NO GO Caution line - INS ATT HUD display - flashing velocity vector |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 006 | <p>4 ▶ Armament Computer CP-1342/AYQ-9(V) Avionic Mux Bus 1X/1Y fail (Stores Management System)</p> <ul style="list-style-type: none"> Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - NO GO |
| 007 | <p>5 ▶ Detecting Set AN/AAS-38 Avionic Mux Bus 2X/2Y fail (Forward Looking Infrared System)</p> <ul style="list-style-type: none"> Replace Controller-Processor C-10361/AAS-38 (A1-F18AC-744-300, WP009 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FLIR BIT status message - NO GO |
| 008 | Spare | |
| 009 | Spare | |
| 010 | <p>5 ▶ Computer Power Supply CP-1325/APG-65 Avionic Mux Bus 2X/2Y fail (Radar System)</p> <ul style="list-style-type: none"> If code 10 and code 40 or 43, do maintenance action for code 40 or 43. If code 10 and radar not ready indication remained continuously on radar display after power cycle was attempted, replace Computer- Power Supply CP-1325/APG-65 (A1-F18AC-742-300, WP005 00). If code 10, radar restarted momen- tarily after power cycled, and radar not ready indication on radar dis- play was replaced by normal radar mode options, replace Radar Target Data Processor CP-1326/APG-65 (A1-F18AC-742-300, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - NO GO |
| 011 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 012 | <p>5 ▶ Laser Detector-Tracker-Strike Camera Set AN/ASQ-173 Avionic Mux Bus 2X/2Y fail (Laser Detector Tracker System)</p> <ul style="list-style-type: none"> Replace Interconnecting Box J-3651/ASQ-173 (A1-F18AC-743-300, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT LST BIT status message - NO GO CAM BIT status message - NO GO |
| 013 | Spare | |
| 014 | <p>4 ▶ Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) Avionic Mux Bus 1X/1Y fail (Electronic Flight Control System)</p> <ul style="list-style-type: none"> Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F001) (A1-F18AC-570-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - NO GO |
| 015 | <p>4 ▶ Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) Avionic Mux Bus 1X/1Y fail (Electronic Flight Control System)</p> <ul style="list-style-type: none"> Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F002) (A1-F18AC-570-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FCSB BIT status message - NO GO |
| 016 | <p>5 ▶ Receiver-Transmitter-Processor RT-1379()/ASW Avionic Mux Bus 2X/2Y fail (Data Link System)</p> <ul style="list-style-type: none"> Replace Receiver-Transmitter-Processor RT-1379()/ASW (A1-F18AC-630-300, WP016 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT D/L Bit status message - NO GO |
| 017 | <p>4 ▶ Command Launch Computer CP-1001/AWG Avionic Mux Bus 1X/1Y fail (Stores Management System)</p> <ul style="list-style-type: none"> Replace Command Launch Computer CP-1001/AWG (A1-F18AC-740-300, WP010 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - NO GO |
| 018 | <p>4 ▶ Receiver-Transmitter RT-1250()/ARC No. 1 Avionic Mux Bus 1X/1Y fail (Communication System)</p> <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 1 (A1-F18AC-600-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - NO GO |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 019 | <div>4 5 Receiver-Transmitter RT-1250()/ARC No. 2 Avionic Mux Bus fail (Communication System)</div> <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 2 (A1-F18AC-600-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT COM 2 BIT status message - NO GO |
| 020 | <div>1 Spare</div> <div>2 5 Countermeasures Com- puter CP-1203/ALR-67(V) Avionic Mux Bus 2X (Countermeasures Warning and Con- trol System)</div> <ul style="list-style-type: none"> Replace Countermeasures Com- puter CP-1283/ALR-67(V) (A1-F18AC-760-300, WP055 00). | |
| 021 thru 023 | Spare | |
| 024 | Aircraft Instrumentation Subsystem Internal (AN/ASQ-T16) Avionic Mux Bus 1X/1Y fail (Aircraft Instrumentation Subsystem Internal) (AISI) | |
| 025 thru 028 | | |
| 029 | <div>4 5 Digital Data Computer No. 2 Avionic Mux Bus fail (Mission Computer System)</div> <ul style="list-style-type: none"> Replace Digital Data Computer No. 2 (A1-F18AC-741-300, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - MC2 |
| 030 | <div>4 Signal Data Recorder RO-508/ASM-612 Avionic Mux Bus 1X/Y fail (Maintenance Status Display and Recording System)</div> <ul style="list-style-type: none"> Replace Signal Data Recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message - NO GO Caution line - CAUT DEGD |
| 031 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|--|
| 032 | Digital Data Computer No. 1 fail (Mission Computer System) <ul style="list-style-type: none"> If MC 1 caution on Digital Display Indicator, do table 1 (A1-F18AC-741-200, WP003 00). Replace Digital Data Computer No. 1 (A1-F18AC-741-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - MC1 Backup Cautions Digital Data Computer No. 1 Fault indicator latched (black and white). |
| 033 | Spare | |
| 034 | Digital Data Computer No. 1 memory alteration (Mission Computer System) <ul style="list-style-type: none"> Ignore code if Digital Data Computer CP-1539A/AYK-14(V) installed. Do table 1 (A1-F18AC-SCM-000, WP006 00). | |
| 035 | Spare | |
| 036 | Digital Data Computer No. 2 fail (Mission Computer System) <ul style="list-style-type: none"> Replace Digital Data Computer No. 2 (A1-F18AC-741-300, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - MC2 Backup Symbology (All display formats) Digital Data Computer No. 2 Fault indicator latched (black and white) |
| 037 | Digital Data Computer No. 2 memory alteration (Mission Computer System) <ul style="list-style-type: none"> Ignore code if Digital Data Computer CP-1539A/AYK-14(V) installed. Do table 2 (A1-F18AC-SCM-000, WP006 00). | |
| 038 | Spare | |
| 039 | Spare | |
| 040 | 9 ▶ Radar Target Data Processor CP-1326/APG-65 fail (Radar System) <ul style="list-style-type: none"> Replace Radar Target Data Processor CP-1326/APG-65 (A1-F18AC-742-800, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH RDR display (WP008 00) Radar Target Data Processor CP-1326/APG-65 <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 041 | 9 ▶ Radar Transmitter T-1377/APG-65 fail (Radar System) <ul style="list-style-type: none"> Replace Radar Transmitter T-1377/APG-65 (A1-F18AC-742-300, WP007 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH RDR display (WP008 00) Radar Transmitter T-1377/APG-65 <ul style="list-style-type: none"> Fault indicator latched (black And white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------|--|--|
| 042 | <p>9 ▶ Radar Receiver-Exciter R-2089/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> Replace Radar Receiver-Exciter R-2089/APG-65 (A1-F18AC-742-300, WP006 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH RDR display (WP008 00) <p>Radar Receiver-Exciter R-2089/APG-65</p> <ul style="list-style-type: none"> Fault indicator latched (black And white) |
| 043 | <p>9 ▶ Computer-Power Supply CP-1325/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> Replace Computer-Power Supply CP-1325/APG-65 (A1-F18AC-742-300, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH RDR display (WP008 00) <p>Computer-Power Supply CP-1325/APG-65</p> <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 044 | <p>9 ▶ Antenna AS-3254/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> If codes 044 and 045, do maintenance action for code 45. If code 044 and no 045, do radar system initiated BIT (A1-F18AC-742-200, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH RDR display (WP008 00) <p>Antenna AS-3254/APG-65</p> <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 045 | <p>9 ▶ Antenna servo electronics gimbal assembly fail (Radar System)</p> <ul style="list-style-type: none"> Replace antenna servo electronics gimbal assembly (A1-F18AC-742-300, WP010 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH RDR display (WP008 00) |
| 046 | <p>Transmitter coolant flow low (Radar System)</p> <ul style="list-style-type: none"> If codes 046 and 841, do troubleshooting procedures (A1-F18AC-FIM-000, WP021 00). If code 046 and no 841, do troubleshooting procedure (A1-F18AC-FIM-000, WP032 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH |
| 047 (A) | <p>Waveguide pressure low (Radar System)</p> <ul style="list-style-type: none"> Do table 5 (A1-F18AC-742-200, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH |
| 048 | <p>Weight off wheels/inflight disagree (Radar System)</p> <ul style="list-style-type: none"> Do table 7 (A1-F18AC-742-200, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH |
| 049 thru 051 | Spare | |
| | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 052 (P) | Do initiated BIT (Radar System) <ul style="list-style-type: none"> If code 052 and any code 040 thru 045, do maintenance action for codes 040 thru 045. If code 052 and no codes 040 thru 045, do radar system initiated BIT (A1-F18AC-742-200, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD OH |
| 053 thru 067 | Spare | |
| 068 | Spare | |
| 068 | Radar system launch initiated failed (Radar System) <ul style="list-style-type: none"> Do table 4 (A1-F18AC-742-200, WP009 00). | |
| 069 (A) | Emergency mode activated (Radar System) <ul style="list-style-type: none"> Emergency radar mode of operation was selected. If not confirmed, do table 1 (A1-F18AC-742-200, WP009 00). | |
| 070 | Armament Computer CP-1342/AYQ-9(V) fail (Stores Management System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD OH Armament Computer CP-1342/AYQ-9(V) <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 071 | Left Wingtip Command Signal Encoder Decoder KY-851/AYQ-9(V) fail (Stores Management System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD OH Left Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V) <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 072 | Left Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD OH Left Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 073 | Left Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD OH Left Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) <ul style="list-style-type: none"> Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 074 | Left Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Left Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) • Fault indicator latched (black and white) |
| 075 | Spare | |
| 076 | Right Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) • Fault indicator latched (black and white) |
| 077 | Right Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) • Fault indicator latched (black and white) |
| 078 | Right Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) • Fault indicator latched (black and white) |
| 079 | Right Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V) • Fault indicator latched (black and white) |
| 080 | Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) fail (Stores Management System) • Replace Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) (A1-F18AC-740-800, WP011 00). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) • Fault indicator latched (black and white) |
| 081 | Electrical Fuzing Power Supply PP-6419/AWW-4(V) fail (Stores Management System) • Replace Electrical Fuzing Power Supply PP-6419/AWW-4(V) (A1-F18AC-740-300, WP012 00). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 082 (M) | Emergency Jettison switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 083 (M) | Select Jettison panel switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 084 (M) | Trigger switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 085 (M) | Bomb release switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 086 thru 094 | Spare Spare | |
| 095 | Left Digital Display Indicator fail (Multipurpose Display Group) • Replace left Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator • ADV - BIT Right Digital Display Indicator • LDDI BIT status message - DEGD 1 Left Digital Display Indicator • Fault indicator latched (black and white) |
| 096 | Right Digital Display Indicator fail (Multipurpose Display Group) • Replace right Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator • ADV - BIT • RDDI BIT status message - DEGD 1 Right Digital Display Indicator • Fault indicator latched (black and white) |
| 097 | Horizontal Indicator IP-1350/A fail (Multipurpose Display Group) • Replace Horizontal Indicator IP-1350/A (A1-F18AC-745-300, WP006 00). | Digital Display Indicator • ADV - BIT • HSD BIT status message - DEGD 1 Horizontal Indicator IP-1350/A • Fault indicator latched (black and white) |
| 098 | Head-Up Display Unit AN/AVQ-28 fail (Multipurpose Display Group) • Replace Head-Up Display Unit AN/AVQ-28 (A1-F18AC-745-300, WP003 00). | Digital Display Indicator • ADV - BIT • HUD BIT status message- DEGD Head-Up Display Unit AN/AVQ-28 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)




| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---|
| 099 | Rear Left Digital Display Indicator fail (Multipurpose Display Group) • Replace rear left Digital Display Indicator (A1-F18AC-745-300, WP007 00). | Digital Display Indicator • ADV - BIT • LDDI BIT status message - DEGD 2 Rear Left Digital Display Indicator IP-1318() • Fault indicator latched (black and white) |
| 100 | Rear Right Digital Display Indicator fail (Multipurpose Display Group) • Replace rear right Digital Display Indicator (A1-F18AC-745-300, WP007 00). | Digital Display Indicator • ADV - BIT • RD DI BIT status message - DEGD 2 Rear Right Digital Display Indicator • Fault indicator latched (black and white) |
| 101 | Rear Center Digital Display Indicator fail (Multipurpose Display Group) • Replace rear center Digital Display Indicator (A1-F18AC-745-300, WP005 00). | Digital Display Indicator • ADV - BIT HSD BIT status message - DEGD 2 Rear Center Digital Display Indicator • Fault indicator latched (black and white) |
| 102 | Spare | |
| 103 | Spare | |
| 104 |  Control-Indicator C-10250/ALR-67(V) fail (Countermeasures Warning and Control System) • Replace Control-Indicator C-10250/ALR-67(V) (A1-F18AC-760-300, WP056 00). | |
| 105 |  Left Forward Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control system) • Replace Left Forward Radar Receiver R-1248/ALR-67(V) (A1-F18AC-760-300, WP043 00). | |
| 106 |  Left Rear Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System) • Replace Left Rear Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP050 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 107 | <div>12 ▶ Right Rear Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Right Rear Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP050 00). | |
| 108 | <div>12 ▶ Right Forward Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Right Forward Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP043 00). | |
| 109 | <div>12 ▶ Integrated Antenna AS-3190/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Integrated Antenna AS-3190/ALR-67(V) (A1-F18AC-730-300, WP048 00). | |
| 110 | <div>12 ▶ Radar Receiver R-2055/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Radar Receiver R-2055/ALR-67(V) (A1-F18AC-760-300, WP054 00). | |
| 111 | <div>12 ▶ Countermeasures Computer CP-1293/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Countermeasures Computer CP-1293/ALR-67(V) (A1-F18AC-760-300, WP055 00). | |
| 112 thru 114 | Spare | |
| 115 | Inertial Navigation System fail (Inertial Navigation System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-730-000, WP016 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT INS BIT status message - DEGD or DEGD OH <ul style="list-style-type: none"> HUD display - flashing velocity vector Inertial Navigation Unit FAIL fault indicator latched (black and white) |
| 116-124 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---|
| 125 | Air Data Computer CP-1334/A fail (Air Data Computer System) • Replace Air Data Computer CP-1334/A (A1-F18AC-560-300, WP003 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD Air Data Computer CP-1334/A • Fault indicator latched (black and white) |
| 126 | Right Airstream Direction Sensing Unit TRU-185/A fail (Air Data Computer System) • Replace right Airstream Direction Sensing Unit TRU-185/A (A1-F18AC-560-300, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD |
| 127 | Left Airstream Direction Sensing Unit TRU-185/A fail (Air Data Computer System) • Replace left Airstream Direction Sensing Unit TRU-185/A (A1-F18AC-560-300, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD |
| 128 | Spare | |
| 129 | Total temperature out of range (Air Data Computer System) • See table 1 (A1-F18AC-560-200, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD |
| 130 | Standby Pressure Altimeter AAU-39/A baro set potentiometer fail (Air Data Computer System) • See table 1 (A1-F18AC-560-200, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD • HUD display - Baro Set indication not correct |
| 131 | Magnetic Azimuth Detector DT-604/A fail (Inertial Navigation System) • Do Magnetic Azimuth Detector Ini- tiated BIT Test (A1-F18AC-730-200, WP015 00) and, if MMP code 131 occurs again, do table 2 (A1-F18AC-730-200, WP015 00). • If MMP code 131 does not occur again, ignore code | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD Digital Display Indicator • MAG HDG not correct |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 132 | Magnetic Azimuth Detector compensator unit fail (Inertial Navigation System) <ul style="list-style-type: none"> Do Magnetic Azimuth Detector Initiated BIT Test (A1-F18AC-730-200, WP015 00) and, if MMP code 132 occurs again, do table 2 (A1-F18AC-730-200, WP015 00). If MMP code 132 does not occur again, ignore code. | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD Digital Display Indicator <ul style="list-style-type: none"> MAG HDG not correct |
| 133 (A) | AOA equality fail (Air Data Computer System) <ul style="list-style-type: none"> See table 1 (A1-F18AC-560-200, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD HUD display - AOA not correct |
| 134 thru 144 | Spare | |
| 145 | Control-Converter C-10382/A fail (Mission Computer System) <ul style="list-style-type: none"> If code 145 occurred and Receiver Decoding Group AN/ARA-63 (ILS) is selected on the Electronic Equipment Control C-10380/ASQ (equipment control) and Radio Receiver R-1379()/ARA-63 is not installed, ignore code. If code 145 occurred and no related fault descriptor, no CNI caution, or CNI caution for less than 2 seconds, ignore code. If code 145 occurred and a related Control-Converter C-10382/A fault descriptor exists, or CNI caution for more than 2 seconds, do Control-Converter C-10382/A Test (A1-F18AC-741-200, WP005 00). If code 145 recurs, replace Control-Converter C-10382/A (A1-F18AC-741-300, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT CSC BIT status message - DEGD or DEGD OH TCN BIT status message - DEGD IBS BIT status message - DEGD ICS BIT status message - DEGD ILS BIT status message - DEGD AUG BIT status message - DEGD BCN BIT status message - DEGD IFF BIT status message - DEGD RALT BIT status message - DEGD Caution line - CNI Control-Converter C-10382/A <ul style="list-style-type: none"> Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|--|
| 146 (1) | Intercommunication Amplifier-Control AM-6979/A or AM-7360/A fail (Intercommunication System) <ul style="list-style-type: none"> Ignore code if equipment not installed or if proper headset impedance is not applied (600Ω) Replace Intercommunication Amplifier-Control AM-6979/A or AM-7360/A (A1-F18AC-600-300, WP012 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ICS BIT status message - DEGD |
| 147 (1) | Receiver-Transmitter RT-1015()/APN-194(V) fail (Electronic Altimeter System) <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1015()/APN-194(V) (A1-F18AC-600-300, WP021 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RALT BIT status message - DEGD HUD display - Radar altitude display not correct |
| 148 | Receiver Decoding Group AN/ARA-63 fail (Instrument Landing System) <ul style="list-style-type: none"> Ignore code if equipment not installed. Do troubleshooting procedure (A1-F18AC-FIM-000, WP010 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ILS BIT status message - DEGD HUD display - ILS symbology not correct Pulse Decoder KY-651()/ARA-63 <ul style="list-style-type: none"> Fault indicator latched (white) Radio Receiver R-1379()/ARA-63 <ul style="list-style-type: none"> Fault indicator latched (white) |
| 149 (I) | Interference Blanker MX-9965/A fail (Interference Blanker System) <ul style="list-style-type: none"> If code exists and no related fault descriptor, ignore code. If code exists and a related fault descriptor exists, do Interference Blanker Test (A1-F18AC-760-200, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IBS BIT status message - DEGD Interference Blanker MX-9965/A <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 150 | IFF System fail (IFF System) <ul style="list-style-type: none"> Ignore code if equipment not installed. Observe ANT STATUS, KIT STATUS, and RT STATUS door 13L WRA fault indicators and do maintenance action for latched indicator (WP004 00). If code remains, do IFF Built-In Test (A1-F18AC-600-200, WP032 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD Caution line - IFF 4 |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 151 (I) | Radar Receiver R-1623/APN fail (Radar Beacon System) • Ignore code if equipment not installed. • Replace Radar Receiver R-1623/APN (A1-F18AC-630-300, WP009 00). | Digital Display Indicator • ADV - BIT • AUG BIT status message - DEGD Radar Receiver R-1623/APN • Fault indicator latched (white) |
| 152 (I) | Receiver-Transmitter RT-1159/A fail (TACAN System) • Replace Receiver-Transmitter RT-1159/A (A1-F18AC-600-300, WP015 00). | Digital Display Indicator • ADV - BIT • TCN BIT status message - DEGD • HUD display - TACAN symbology not correct |
| 153 (1) | Receiver-Transmitter RT-1028/ APN-202 fail (Radar Beacon System) • Ignore code if equipment not installed. • Replace Radar Receiver-Transmitter RT-1028/APN-202 (A1-F18AC-630-300, WP008 00). | Digital Display Indicator • ADV - BIT • BCN BIT status message - DEGD Receiver-Transmitter RT-1028/APN-202 • Fault indicator latched (white) |
| 154 thru 164 | Spare Spare | |
| 165 | Signal Data Recorder RO-508/ ASM-612 fail (Maintenance Status Display and Recording System) • Replace Signal Data Recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00). | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD • Caution Line - CAUT DEGD Signal Data Recorder RO-508/ASM-612 • Fault indicator latched (black and white) |
| 166 | Magnetic Tape Cartridge MX-9972/ ASM-612 fail (Maintenance Status Display and Recording System) • Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00). | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD Magnetic Tape Cartridge MX-9972/ASM-612 • Fault indicator latched (black and white) |
| 167 | Signal Data Converter CV-3493/ ASM-612 fail (Maintenance Status Display and Recording System) • See table 1 (A1-F18AC-580-200, WP005 00) | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 168 | Digital Display Indicator ID-2150/ ASM-612 fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> Replace Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-580-300, WP005 00). | Digital Display Indicator ID-2150/ASM-612 <ul style="list-style-type: none"> DDI FAIL indicator latched (black and white) |
| 169 | Strain circuit failure (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With Code 926 but without codes 600, 601, 602, 603, 604, or 605; replace Signal Data Converter CV-3494/ASM-612 (A1-F18AC-580-300, WP003 00). With codes 600, 601, 602, 603, 604, and 605; replace Signal Data Con- verter CV-3494/ASM-612 (A1-F18AC-580-300, WP003 00). With code 600 and with or without code 926, see table 2 (A1-F18AC-580-200, WP005 00). With code 601 and with or without code 926, see table 4 (A1-F18AC-580-200, WP005 00). With code 602 and with or without code 926, see table 5 (A1-F18AC-580-200, WP005 00). With code 603 and with or without code 926, see table 6 (A1-F18AC-580-200, WP005 00). With code 604 and with or without code 926, see table 7 (A1-F18AC-580-200, WP005 00). With code 605 and with or without code 926, see table 8 (A1-F18AC-580-200, WP005 00). Code 169 only, see table 9 (A1-F18AC-580-200, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message - DEGD Caution line - CAUT DEGD Signal Data Converter (CV-3493/ASM-612) <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 170 thru 174 | Spare Spare | |
| 175 | 14 Receiver-Transmitter RT-1250()/ ARC No. 1 fail (VHR/UHF Communication System) <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 1 (76A-F001) (A1-F18AC-600-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - DEGD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 176 | <p>14 ➤ COM 1 Excessive VSWR Detected (VHF/UHF Communication System)</p> <ul style="list-style-type: none"> If code 176 exists and no code 180, do table 1 (A1-F18AC-600-200, WP004 00) If code 176 and code 180 exists, do troubleshooting procedure (A1-F18AC-FIM-000, WP167 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - DEGD D/L BIT status message - DEGD TILT - Link 4 display UTM FAIL - Link 4 display ACL N/A - Link 4 display CPL N/A - Link 4 display |
| 177 | <p>14 ➤ Receiver-Transmitter RT-1250()/ARC No. 2 fail (VHF/UHF Communication System)</p> <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 2 (76A-F002) (A1-F18AC-600-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 2 BIT status message - DEGD |
| 178 | <p>14 ➤ COM 2 Excessive VSWR Detected (VHF/UHF Communication System)</p> <ul style="list-style-type: none"> See table 1 (A1-F18AC-600-200, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 2 BIT status message - DEGD |
| 179 | <p>Receiver-Transmitter-Processor RT-1379()/ASW fail (Data Link System)</p> <ul style="list-style-type: none"> Replace Receiver-Transmitter-Processor RT-1379()/ASW (A1-F18AC-630-300, WP016 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT D/L BIT status message - DEGD TILT - Link 4 display UTM FAIL - Link 4 display ACL N/A - Link 4 display CPL N/A - Link 4 display |
| 180 | <p>Data Link Excessive VSWR Detected (Data Link System)</p> <ul style="list-style-type: none"> If code 180 and no 176, do table 4 (A1-F18AC-630-200, WP015 00). If code 180 and code 176 exists, do troubleshooting procedure (A1-F18AC-FIM-000, WP167 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT D/L BIT status message - DEGD COMM 1 BIT status message - DEGD TILT - Link 4 display UTM FAIL - Line 4 display ACL N/A - Link 4 display CPL N/A - Link 4 display |
| 181 thru 184 | Spare | |
| 185 (P.I) | Spare | |
| | <p>Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F001) fail (FCCA) (Electronic Flight Control System)</p> <ul style="list-style-type: none"> See A1-F18AC-570-200, WP006 00. | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 186 (P,I) | Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F002) fail (FCCB) (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSB BIT status message - DEGD or DEGD OH |
| 187 (P,I) | Linear Electrical Accelerometer CN-1512/ASW-44 (84A-F004) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 188 (P,I) | Linear Electrical Accelerometer CN-1512/ASW-44 (84A-F005) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 189 (P,I) | Air Data Sensor DT-600/ASW-44 (84A-D012) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 190 (P,I) | Rate Gyroscope CN-1511/ASW-44 (84A-F007) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 191 (P,I) | Rate Gyroscope CN-1511/ASW-44 (84A-F006) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 192 (I) | Control stick position sensors; lateral stick position sensor (84A-J122) or longitudinal feel trim actuator/stick position sensor (84D-C026) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 193 (I) | Rudder Control C-10423/ASW-44 fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 194 (I) | FCS Control Panel C-10406/ASW-44 fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 195 (P,I) | Read BIT Logic Inspection (BLIN) Codes (Electronic Flight Control System) • Do A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 196 thru 198 | Spare | |
| 199 (P,I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|---------------------------------|
| 200 (P) | Spare | |
| 201 (P,I) | 84P-H003A (J1) of FCS Control Panel C-10406/ASW-44 to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 202 (P,I) | 84P-H003B (J2) of FCS Control Panel C-10406/ASW-44 to 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 203 (P,I) | 84P-J037 of Control Stick Grip Adapter Assembly to 84P-F001B (J2) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F002B (J2) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB), or 84P-L096 of Rear Control Stick Grip Adapter Assembly to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 204 (P,I) | 84J-C026C (P3) of longitudinal feel trim actuator/stick position sensor (84B-C026) or 84J-J122A (P1) of lateral stick position sensor (84A-J122) to 84P-F001B (J2) or 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA), or 84J-C026B (P2) of longitudinal feel trim actuator/stick position sensor (84B-C026) or 84J-J122B (P2) of lateral stick position sensor (84A-J122) to 84P-F002B (J2) or 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|---|
| 205 (P,I) | 84J-J025A (P1) of Rudder Control C-10423/ASW-44 to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 206 (P,I) | 84J-J025B (P2) of Rudder Control C-10423/ASW-44 to 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 207 (P,I) | 84J-L097A (P1) of rear Rudder Control C-10423/ASW-44 to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 208 (P,I) | 84J-L097B (P2) of rear Rudder Control C-10423/ASW-44 to 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | <ul style="list-style-type: none"> • FCSB BIT status message - DEGD or DEGD OH |
| 209 (P,I) | 84P-D012A (J1) of Air Data Sensor DT-600/ASW-44 to 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | <ul style="list-style-type: none"> • FCSB BIT status message - DEGD or DEGD OH |
| 210 (P,I) | 84P-D012B (J2) of Air Data Sensor DT-600/ASW-44 to 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 211 (P,I) | 84P-F004A (J1) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F001D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F004B (J2) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|--|--|
| 212 (P,I) | 84P-F005A (J1) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F002D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F005B (J2) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 213 (P,I) | 84P-F007A (J1) of Rate Gyroscope CN-1511/ASW-44 to 84P-F001D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F007B (J2) or Rate Gyroscope CN-1511/ASW-44 to 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 214 (P,I) | 84P-F006A (J1) of Rate Gyroscope CN-1511/ASW-44 to 84P-F002D (J4) or Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F006B (J2) of Rate Gyroscope CN-1511/ASW-44 to 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 215 (P,I) | 84P-G035A of nosewheel steering power unit or 84P-G035B of nosewheel steering power unit 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) and 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|--|--|
| 216 (P,I) | <p>84P-F001E (J5) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) to 84P-F002C (J3) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F001K (J10) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) to 84P-F002M (J12) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail</p> <p>or</p> <p>84P-F002E (J5) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) to 84P-F001C (J3) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F00K (J10) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) to 84P-F001M (J12) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail</p> <p>or</p> <p>84P-F001A (J1) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) to 84P-F001J (J9) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail</p> <p>or</p> <p>84P-F002A (J1) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F002J (J9) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F002D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail.</p> <p>(Electronic Flight Control System)</p> <ul style="list-style-type: none"> • See A1-F18AC-570-200, WP006 00. | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 217 (P,I) | Spare | |
| 218 (P) | <p>Run maintenance BIT, NWS test (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • See A1-F18AC-570-200, WP005 02. | |
| 219 (P,I) | <p>Run maintenance BIT, ATC test (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • See A1-F18AC-570-200, WP005 02. | |
| 220 (P,I) | Spare | |
| 221 (P,I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|---------------------------------|
| 222 (P,I) | Run maintenance BIT; left stabilator tests, TG2 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 223 (P,I) | Run maintenance BIT; right stabilator tests, TG3 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 224 (P,I) | Run maintenance BIT; left trailing edge flap tests, TG4 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 225 (P,I) | Run maintenance BIT; right trailing edge flap tests, TG5 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 226 (P,I) | Run maintenance BIT; leading edge flap tests, TG6 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 227 (P,I) | Run maintenance BIT; rudder tests, TG7 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 228 (P,I) | Run maintenance BIT; Air Data Sensor DT-600/ASW-44 and Airstream Direction Sensing Unit TRU-185/A tests, TG8 (Electronic Flight Control System) • See A1-F18AC-570-200, WP005 04. | |
| 229 (P,I) | Spare | |
| 230 (P,I) | Run maintenance BIT; aileron tests, TG10 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 231 (P,I) | Run maintenance BIT; stick/NWS/ATC tests, TG11 (Electronic Flight Control System) • See A1-F18AC-570-200, WP005 05. | |
| 232 (P,I) | Spare | |
| 233 (I) | Spare | |
| 234 (I) | Spare | |
| 235 (I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|--|---------------------------------|
| 236 (P,I) | Spare | |
| 237 (P,I) | Spare | |
| 238 (P,I) | Spare | |
| 239 (P,I) | Spare | |
| 240 (M) | Spare | |
| 241 (M) | Spare | |
| 242 (I) | Spare | |
| 243 | Spare | |
| 244 | Spare | |
| 245 (I) | Spare | |
| 246 (I) | Spare | |
| 247 | Spare | |
| 248 | Spare | |
| 249 (I) | Spare | |
| 250 (I) | Spare | |
| 251 (I) | Spare | |
| 252 (I) | Spare | |
| 253 (I) | Spare | |
| 254 (I) | Spare | |
| 255 (I) | Spare | |
| 256 (I) | Spare | |
| 257 (I) | Spare | |
| 258 (I) | Spare | |
| 259 (I) | Spare | |
| 260 (I) | Spare | |
| 261 (M) | Spare | |
| 262 (M) | Spare | |
| 263 (M) | Spare | |
| 264 (M) | Spare | |
| 265 (I) | Spare | |
| 266 (I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 267 thru 274 | Spare | |
| 275 (I) | Spare | |
| 276 (I) | Spare | |
| 277 (I,M) | Spare | |
| 278 (I,M) | Spare | |
| 279 (I) | Spare | |
| 280 (I) | Spare | |
| 281 (P,I) | Spare | |
| 282 (P,I) | Spare | |
| 283 | Spare | |
| 284 | Spare | |
| 285 (P,I) | Spare | |
| 286 (P,I) | Spare | |
| 287 (P,I) | Spare | |
| 288 (P,I) | Spare | |
| 289 (P,I) | Spare | |
| 290 (P,I) | Spare | |
| 291 (P,I) | Spare | |
| 292 (P,I) | Spare | |
| 293 (P,I) | Spare | |
| 294 (P,I) | Spare | |
| 295 (P,I) | Spare | |
| 296 thru 299 | Spare | |
| 300 | Optics-Stabilizer SU-112/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 301 | Infrared Receiver R-2158/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 302 | Roll Drive Amplifier AM-7040/ AAS-38 (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 303 | Roll Drive Motor MX-10085/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 304 | Power Supply PP-7567/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 305 | Controller-Processor C-10661/ AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 306 | Servo Controller C-10662/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 307 | Pod Forward Section MX-10084/ AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 308 | Temperature Control C-10681/ AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 309 | Pod Aft Section MX-10086/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 310 | Left heat exchanger blower fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 311 | Right heat exchanger blower fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 312 | Pod forward section fan fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 313 thru 324 | Spare Spare | |
| 325 | Laser Detector DT-612/ASQ-173 fail (Laser Detector Tracker System) • Replace Laser Detector DT-612/ASQ-173 (A1-F18AC-743-300, WP003 00). | Digital Display Indicator • ADV - BIT • LST BIT status message - DEGD or DEGD OH |
| 326 | Interconnecting Box J-3656/ASQ-173 fail (Laser Detector Tracker System) • Replace Interconnecting Box J-3656/ASQ-173 (A1-F18AC-743-300, WP004 00). | Digital Display Indicator • ADV - BIT • LST BIT status message - DEGD or DEGD OH • CAM BIT status message - DEGD or DEGD OH |
| 327 thru 340 | Spare Spare | |
| 341 | Test value | |
| 342 thru 349 | Spare Spare | |
| 350 | Strike Recording Still Picture Camera KB-35A fail (Strike Camera System) • Replace Strike Recording Still Pic- ture Camera KB-35A (A1-F18AC-770-300, WP010 00). | Digital Display Indicator • ADV - BIT • CAM BIT status message - DEGD or DEGD OH |
| 351 | Camera Drive-Mounting TG-244/ ASQ-173 fail (Strike Camera System) • Replace Camera Drive-Mounting TG-244/ASQ-173 (A1-F18AC-770-300, WP009 00). | Digital Display Indicator • ADV - BIT • CAM BIT status message - DEGD or DEGD OH |
| 352 thru 374 | Spare Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 375 | Command Launch Computer CP-1001/AWG fail (Stores Management System) • Replace Command Launch Com- puter CP-1001/AWG (A1-F18AC-740-300, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 376 | CLC/SMS Interface fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 377 | CLC/ALR-67 Interface fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 378 | Station 2 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 379 | Station 3 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 380 | Station 7 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 381 | Station 8 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 382 | Station 2 HARM missile interface degrade (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 383 | Station 3 HARM missile interface degrade (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 384 | Station 7 HARM missile interface degrade (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 385 | Station 8 HARM missile interface degrade (Stores Management System) Digital Display Indicator • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 386 thru 390 | Spare Spare | |
| 391 | Station 2 left 8 HARM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 392 | Station 2 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 393 | Station 3 left AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 394 | Station 3 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 395 | Spare | |
| 396 | Station 4 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 397 thru 399 | Spare Spare | |
| 400 | Station 6 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 401 | Station 7 left AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 402 | Station 7 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 403 | Station 8 left AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 404 | Station 8 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 405 thru 408 | Spare Spare | |
| 409 | Tunable notch filter (Airborne Self Protect Jammer) | |
| 410 | Countermeasures Receiver R-2236/ALQ-165(V) fail (Airborne Self Protect Jammer) | |
| 411 | Countermeasures Receiver R-2237/ALQ-165(V) fail (Airborne Self Protect Jammer) | |
| 412 | Countermeasures Computer CP-1530/ALQ-165(V) (Airborne Self Protect Jammer) | |
| 413 | Countermeasures Transmitter T-1463/ALQ-165(V) (Airborne Self Protect Jammer) | |
| 414 | Countermeasures Transmitter T-1464/ALQ-165(V) (Airborne Self Protect Jammer) | |
| 415 thru 418 | Spare Spare | |
| 419 | MC1 Installation Error (Mission Computer System) • MC1 has been installed in another aircraft or aircraft bureau number has been altered. Life Usage Indices data have been compromised. • If code returns after reloading MC1, troubleshoot aircraft bureau number using table 1 (A1-F18AC-740-220, WP041 00). • Do table 1 (A1-F18AC-SCM-000, WP006 02) | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------|--|---|
| 420 | Spare | |
| 421 | No Spare lamps (Multipurpose Display Group) | |
| | <ul style="list-style-type: none"> Replace Lamp Assembly (A1-F18AC-745-300, WP023 00). | |
| 422 thru 599 | Spare | |
| 600 | Wingfold Strain Gage fail (Maintenance Status Display and Recording System) | Digital Display Indicator |
| | <ul style="list-style-type: none"> With codes 169 and 926, see table 2 (A1-F18AC-580-200, WP005 00). With codes 169, 601, 602, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 600 only, no maintenance action required. | <ul style="list-style-type: none"> ADV BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) |
| 601 | Forward 1 Fuselage Strain Gage fail (Maintenance Status Display and Recording System) | Digital Display Indicator |
| | <ul style="list-style-type: none"> With codes 169 and 926, see table 4 (A1-F18AC-580-200, WP005 00). With codes 169, 600, 602, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 601 only, no maintenance action required. | <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message DEGD Caution line CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) |
| 602 | Left Horizontal Stabilator Strain Gage fail (Maintenance Status Display and Recording System) | Digital Display Indicator |
| | <ul style="list-style-type: none"> With codes 169 and 926, see table 5 (A1-F18AC-580 200, WP005 00). With codes 169, 600, 601, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 602 only, no maintenance action required. | <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message - DEGD Caution line CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 603 | Right Horizontal Stabilator Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 6 (A1-F18AC-580-200, WP005 00). With codes 169, 600, 601, 602, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 603 only, no maintenance action required. | Digital Display Indicator <ul style="list-style-type: none"> ADV BIT SDRS BIT status message DEGD Caution line, CAUT DEGD Signal Data CV-3493/ASM-612 Fault indicator latched (black and white) |
| 604 | Left Vertical Stabilizer Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 7 (A1-F18AC-580-200, WP005 00). With codes 169, 600, 601, 602, 603 and 605; replace Signal Data | Digital Display Indicator <ul style="list-style-type: none"> ADV BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 604 only, no maintenance action required. |
| 605 | Right vertical stabilizer strain gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 8 (A1-F18AC-580-200, WP005 00). With code 169, 600, 601, 602, 603 and 604; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 605 only, no maintenance action required. | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) |
| 606 thru 649 | Spare Spare | |
| 650 | Left engine fan speed signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 3 (A1-F18AC-270-200, WP006 01). | |
| 651 | Left engine compressor speed signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP006 01). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 652 | Left engine EGT signal fail (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator • Engine monitor display • LEFT EGT - 1311/SDC Engine Monitor - Crew Station Indicator AEU-12/A • L engine EGT indicator - not correct |
| 653 thru 657 | Spare Spare | |
| 658 | Left fuel temperature signal fail (Fuel System) • When code 674, replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). • If no code 674, do table 2 (A1-F18AC-460-200, WP016 00). | Digital Display Indicator • Engine monitor display • • RIGHT FUEL TEMP - blank • • LEFT FUEL TEMP - blank |
| 659 | Left engine compressor discharge pressure signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • LEFT CDP - blank |
| 660 | Left engine turbine discharge pressure signal fail (Engine Instrument System) • Do table 4 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • LEFT TDP - blank |
| 661 | Left engine inlet temperature signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, (WP010 00). | Digital Display Indicator • Caution line L IN TEMP Voice alert message "Engine Left, Engine Left" |
| 662 | Left engine oil pressure signal fail (Engine Instrument System) • Do table 5 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator • • Engine monitor display • • LEFT OIL PRESS - blank Engine Monitor - Crew Sta- tion Indicator AEU-12/A • • L engine oil pressure indicator not correct |
| 663 thru 665 | Spare Spare | |
| 666 | Right engine fan speed signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP006 01). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 667 | Right engine compressor speed signal fail (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP006 01). | |
| 668 | Right engine EGT signal fail (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator • • Engine monitor display • • RIGHT EGT - 1311°C Engine Monitor - Crew Station Indicator AEU-12/A • R engine EGT indicator - not correct |
| 669 thru 673 | Spare Spare | |
| 674 | Right fuel temperature signal fail (Fuel System) • When code 658, replace Signal Data Converter CV-3493/ ASM-612 (A1-F18AC-580-300, WP003 00). • If no code 658, do table 3 (A1-F18AC-460-200, WP016 00). | Digital Display Indicator • • Engine monitor display • • RIGHT FUEL TEMP - blank • • FUEL TEMP - blank |
| 675 | Right engine compressor discharge pressure signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • RIGHT CDP blank |
| 676 | Right engine turbine discharge pres- sure signal fail (Engine Instrument System) • Do table 4 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • RIGHT TDP - blank |
| 677 | Right engine inlet temperature signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP010 00). | Digital Display Indicator • Caution line - R IN TEMP Voice Alert message - “Engine Right, Engine Right” |
| 678 | Right engine oil pressure signal fail (Engine Instrument System) • Do table 5 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator • • Engine monitor display • • RIGHT OIL PRESS - blank Engine Monitor - Crew station Indicator AEU-12/A • R engine oil pressure - not correct |
| 679 thru 681 | Spare Spare | |
| 682 | Test value | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 683 thru 701 | Spare | |
| 702 | Left engine level 3 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 overtemp (see figure 4, A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 overtemp, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L EGT HIGH Voice Alert message - "Engine Left, Engine Left" |
| 703 | Left engine fan vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP009 01). | |
| 704 | Left engine compressor vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP003 01). | |
| 705 | Spare | |
| 706 | Left engine oil pressure high (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OIL PR Voice Alert message - "Engine Left, Engine Left" |
| 707 | Left engine oil pressure low (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OIL PR Voice alert message - "Engine Left, Engine Left" |
| 708 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 709 | Left engine level 2 EGT overtemp (Engine Instrument System) • Borescope inspect hot section (A1-F18AC-270-300, WP060 00) and do table 1 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator • Caution line - L EGT HIGH Voice Alert message - "Engine Left, Engine Left" |
| 710 | Left engine level 3 fan overspeed (Engine Instrument System) • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 ver- ifies level 3 fan overspeed (see fig- ure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 fan overspeed, do table 1 (A1-F18AC-270-200, WP007 00). • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital display indicator • Caution line - L OVRSPD Automatic left engine shutdown Voice Alert message - "Engine Left, Engine Left" |
| 711 | Left engine level 2 fan overspeed (Engine Instrument System) • Do table 1 (A1-F18AC-270-200, WP003 00). | Digital Display Indicator • Caution line - L OVRSPD Automatic left engine shutdown Voice Alert message - "Engine Left, Engine Left" |
| 712 | Left engine level 1 fan overspeed (Engine Instrument System) • Do table 1 (A1-F18AC-270-200, WP009 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 713 | Left engine level 3 compressor over-speed (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 compressor over-speed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 compressor over-speed, do table 1 (A1-F18AC-270-200, WP007 00) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OVRSPD Automatic left engine shutdown Voice Alert message - "Engine Left, Engine Left" |
| 714 | Left engine level 2 compressor over-speed (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP009 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OVRSPD Automatic left engine shutdown Voice alert message - "Engine Left, Engine Left" |
| 715 | Left engine level 1 compressor over-speed (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP009 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 716 | Left engine flameout (Engine Instrument System) <ul style="list-style-type: none"> When engine relight was successful, do table 4 (A1-F18AC-270-200, WP006 00). If engine did not relight, do table 3 (A1-F18AC-270-200, WP006 00). If engine flameout did not occur or was not evident, do table 3 (A1-F18AC-270-200, WP012 00). Determine if combustible fluid was ingested. If an engine anomaly heard or observed, do table 7 (A1-F18AC-270-200, WP006 01). If engine flameout MMP code did not set when fire warning light pushbutton switch was used to shutdown engines, do throttle rigging (A1-F18AC-270-200, WP012 00, table 8). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L FLAMEOUT Voice alert message - "Engine Left, Engine Left" |
| 717 thru 751 | Spare Spare | |
| 752 | Right engine level 3 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 overtemp (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 overtemp, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R EGT HIGH Voice Alert message - "Engine Right, Engine Right" |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 753 | Right engine fan vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP009 01). | |
| 754 | Right engine compressor vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP009 01). | |
| 755 | Spare | |
| 756 | Right engine oil pressure high (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OIL PR Voice alert message - "Engine Right, Engine Right" |
| 757 | Right engine oil pressure low (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OIL PR Voice Alert message - "Engine Right, Engine Right" |
| 758 | Spare | |
| 759 | Right engine level 2 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> Borescope inspect hot section (A1-F18AC-270-300, WP060 00) and do table 1 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R EGT HIGH Voice Alert message - "Engine Right, Engine Right" |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 760 | Right engine level 3 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 fan overspeed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 fan overspeed, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OVRSPD Automatic right engine shutdown Voice Alert message - "Engine Right, Engine Right" |
| 761 | Right engine level 2 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP009 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OVRSPD Automatic right engine shutdown Voice alert message - "Engine Right, Engine Right" |
| 762 | Right engine level 1 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP009 00). | |
| 763 | Right engine level 3 compressor over-speed (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 compressor over-speed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 compressor over-speed, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OVRSPD Automatic right engine shutdown Voice alert message - "Engine Right, Engine Right" |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 764 | Right engine level 2 compressor over-speed (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP009 00). | Digital Display Indicator • Caution line - R OVRSPD Automatic right engine shutdown Voice Alert message - "Engine Right, Engine Right" |
| 765 | Right engine level 1 compressor over-speed (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP009 00). | |
| 766 | Right engine flameout (Engine Instrument System) • When engine relight was successful, do table 4 (A1-F18AC-270-200, WP006 00). • If engine did not relight, do table 3 (A1-F18AC-270-200, WP006 00). • If engine flameout did not occur or was not evident, do table 3 (A1-F18AC-270-200, WP012 00). • Determine if combustible fluid was ingested. If an engine anomaly was heard or observed, do table 7 (A1-F18AC-270-200, WP006 01). • If engine flameout MMP code did not set when fire warning light pushbutton switch was used to shutdown engines, do throttle rigging (A1-F18AC-270-200, WP012 00, table 8). | Digital Display Indicator • Caution line - R FLAMEOUT Voice Alert message - "Engine Right, Engine Right" |
| 767 thru 799 | Spare Spare | |
| 800 | APU overspeed (Secondary Power System) • Do ECU/APU test (A1-F18AC-240-200, WP003 01). | APU Auto Shutdown |
| 801 | APU overheat (Secondary Power Control System) • Do ECU/APU test (A1-F18AC-240-200, WP003 01). | APU Auto Shutdown |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 802 | <p>APU no flame (Secondary Power Control System)</p> <ul style="list-style-type: none"> • If code 802 and 800, 801 or 804, replace ECU (A1-F18AC-240-300, WP019 00). • If code 805, replace APU fuel shut-off valve (A1-F18AC-240-300, WP009 00). • If no code 805 and ECU/APU tester available, do ECU/APU test (A1-F18AC-240-200, WP003 01). • If ECU/APU tester not available, do table 1 (A1-F18AC-240-200, WP005 04). | APU Light off and immediate shutdown |
| 803 | Spare | APU Auto shutdown with no ready light |
| 804 | <p>APU start period timer timed out (Secondary Power System)</p> <ul style="list-style-type: none"> • Be sure APU accumulator is properly charged (A1-F18AC-PCM-000). • Retry APU start (A1-F18AC-LMM-000). • If APU starts, ignore code. <p>If APU does not start do below:</p> <ul style="list-style-type: none"> • If ECU/APU tester available, do ECU/APU test (A1-F18AC-240-200, WP003 01). • If ECU/APU tester is not available, do table 4 (A1-F18AC-240-200, WP006 00). | |
| 805 | <p>APU fuel shutoff valve failed to open (Secondary Power System)</p> <ul style="list-style-type: none"> • Replace APU fuel shutoff valve (A1-F18AC-240-300, WP009 00). | |
| 806 thru 810 | Spare | |
| 811 | <p>ACFT overstress (positive G exceeded)</p> <ul style="list-style-type: none"> • Do over G flight procedure (A1-F18AC-LMM-030). | HUD display - maximum normal acceleration indication |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 812 | Magnetic Tape Cartridge MX-9972/ ASM-612 full (Maintenance Status Display and Recording System) • Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00). | |
| 813 | Left Anti-Ice fail (Basic Engine System) • Do table 1 (A1-F18AC-270-200, WP010 00). | Digital Display Indicator • ADV - L HEAT |
| 814 | Right Anti-Ice fail (Basic Engine System) • Do table 1 (A1-F18AC-270-200, WP010 00). | Digital Display Indicator • ADV - R HEAT |
| 815 | Inlet ice detector fail (Basic Engine System) • If code 815 is set and external electrical power was applied to aircraft before code was set, do Inlet Ice Detector Test (A1-F18AC-270-200, WP020 00). • If code 815 is set and external electrical power was not applied to aircraft before code was set, replace inlet ice detector (A1-F18AC-270-300, WP098 00). | |
| 816 | Left AMAD oil pressure low (Secondary Power System) • Do table 3 (A1-F18AC-240-200, WP005 05). | Digital Display Indicator • Caution line - L AMAD PR |
| 817 | Right AMAD oil pressure low (Secondary Power System) • Do table 3 (A1-F18AC-240-200, WP005 05). | Digital Display Indicator • Caution line - R AMAD PR |
| 818 | Left ATSCV open (Secondary Power System) • Do table 5 (A1-F18AC-240-200, WP005 00). | |
| 819 | Right ATSCV open (Secondary Power System) • Do table 6 (A1-F18AC 240-200, WP005 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 820 | ACS temperature/flow controller (item 29) fail (Environmental Control System) • If code 820 and any related indication, go to A1-F18AC-FRM-000, WP005, Table 8 and work the related Fault Descriptor. • If code 820 and no related indication, do table 1 (A1-F18AC-410-200, WP092 00). | Ground power shutdown Digital Display Indicator • Caution line - AV AIR HOT Cabin (cockpit) temperature not correct Vent suit temperature not correct |
| 821 | Cabin airflow/temperature sensor (item 32) fail (Cabin Cooling and Defog System) • Do table 1 (A1-F18AC-410-200, WP093 00). | Cabin (cockpit) airflow not correct Cabin airflow temperature not correct |
| 822 | Avionics airflow/temperature sensor (item 58) fail (Avionics Cooling System) • Do table 1 (A1-F18AC-410-200, WP094 00). | Digital Display Indicator • Caution line - AV AIR HOT Cabin airflow no/low flow |
| 823 | Suit/cabin temperature control (item 80) fail (Cabin Cooling and Defog System) • Do table 1 (A1-F18AC-410-200, WP095 00) | Cabin air temperature not correct Vent suit temperature not correct |
| 824 | System supply airflow incorrect (Air Cycle Air Conditioning System) • Do troubleshoot procedure (A1-F18AC-FIM-000, WP075 00). | |
| 825 | Cabin airflow incorrect (Cabin Cooling and Defog System) • Do the maintenance action for the related cabin (cockpit) indication: 1. Do troubleshooting procedure (A1-F18AC-FIM-000, WP077 00). 2. Do troubleshooting procedure (A1-F18AC-FIM-000, WP078 00). 3. Do troubleshooting procedure (A1-F18AC-FIM-000, WP078 00). | 1. Cabin air no/low flow 2. Cabin air flow high 3. Cyclic cabin flow |
| 826 | ECS air flow to radar liquid cooling air flow valve (item 12) fail (Radar Liquid Cooling System) • If codes 826 and 843, do troubleshooting procedure (A1-F18AC-FIM-000, WP023 00). • If code 826 and no 843, do table 1 (A1-F18AC-410-200, WP109 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 827 | Cabin temperature incorrect (Cabin Cooling and Defog System) • Do the maintenance action for the related cabin (cockpit) indication: 1. Do troubleshooting procedure (A1-F18AC-FIM-000, WP080 00). 2. Do troubleshooting procedure (A1-F18AC-FIM-000, WP081 00). 3. Replace avionics flow valve (A1-F18AC-410-300, WP058 00). | 1. Cabin air temperature high 2. Cabin air too cold 3. Cabin temperature high Digital Display Indicator • Caution line - AV AIR HOT |
| 828 | Radar liquid coolant temperature sensor (item 49) fail (Radar Liquid Cooling System) • Do table 1 (A1-F18AC-410-200, WP110 00). | |
| 829 | ECS delivery air temperature incorrect (Air Cycle Air Conditioning System) • Do table 1 (A1-F18AC-410-200, WP100 00). | |
| 830 | Vent suit temperature sensor (item 54) fail (Vent Suit System) • Do table 1 (A1-F18AC-410-200, WP096 00). | |
| 831 | Bleed air leak or bleed air leak detection fail (Bleed Air System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP082 00). | |
| 832 | Primary bleed air overpressure (Bleed Air System) • If codes 832 and 833, do troubleshooting procedure (A1-F18AC-FIM-000, WP084 00). • If code 832 and no 833, do table 1 (A1-F18AC-410-200, WP101 00). | |
| 833 | Secondary bleed air overpressure (Bleed Air System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP084 00). | |
| 834 | Left pitot heat circuit fail (Pitot Static System) • Do table 3, (A1-F18AC-510-200, WP003 00). | Digital Display Indicator • Caution line - L PITOT HT |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 835 | Right pitot heat circuit fail (Pitot Static System) • Do table 3 (A1-F18AC-510-200, WP003 00). | Digital Display Indicator • Caution line - R PITOT HT |
| 836 | 14 Spare 15 Left Avionics cooling fan over-heat (Cabin Cooling and Defog System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP163 00). | |
| 837 | 14 Spare 15 Right avionics cooling fan over-heat (Cabin Cooling and Defog System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP164 00). | |
| 838 | 16 Spare 17 Left rear avionics cooling fan overheat (Cabin Cooling and Defog System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP165 00). | |
| 839 | 16 Spare 17 Right rear avionics cooling fan overheat (Cabin Cooling and Defog System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP166 00). | |
| 840 | Radar liquid cooling system filter overpressure (Radar Liquid Cooling System) • If ΔP indicator not extended, do table 1 (A1-F18AC-410-200, WP091 00). • If ΔP indicator extended, replace filter element (A1-F18AC-410-300, WP124 00). | |
| 841 | Radar liquid cooling system pressure low (Radar Liquid Cooling System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP021 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 842 | Radar liquid cooling system heat exchanger or fan fail (Radar Liquid Cooling System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP022 00). | |
| 843 | Radar liquid cooling system door operation fail (Radar Liquid Cooling System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP023 00). | |
| 844 | Radar liquid cooling system temperature high (Radar Liquid Cooling System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP073 00). | |
| 845 | 13 Cabin Exit Air Controller (Item 125) Fail (Avionics Cooling System) • Do troubleshooting procedures (A1-F18AC-410-200, WP086 00). | |
| 846 | 13 Cabin Exit Air Valve (Item 122) Fail (Avionics Cooling System) • Do troubleshooting procedure (A1-F18AC-410-200, WP087 00). | |
| 847 | 13 Cabin Exit Air Pressure Low (Avionics Cooling System) • Do troubleshooting procedure (A1-F18AC-410-200, WP088 00). | Digital Display Indicator • Caution Line - AV AIR DEGD |
| 848 thru 869 | Spare Spare | |
| 870 | Left generator converter unit fail (AC Power System) • Replace left generator converter unit (A1-F18AC-420-300, WP003 00). | Digital Display Indicator • Caution line - L GEN Caution light indicator panel • L GEN Caution light - on |
| 871 | Right generator converter unit fail (AC Power System) • Replace right generator converter unit (A1-F18AC-420-300, WP003 00). | Digital Display Indicator • Caution line - R GEN Caution light indicator panel • R GEN Caution light - on |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 872 | Left power contactor fail (AC Power System) • If codes 870 and 872, replace left generator converter unit (A1-F18AC-420-300, WP003 00). • If code 872 and no 870, do table 1. (A1-F18AC-420-200, WP003 06). | Digital Display Indicator • Caution line - L GEN Caution light indicator panel • L GEN Caution light - on |
| 873 | Right power contactor fail (AC Power System) • If codes 873 and 871, replace right generator converter unit (A1-F18AC-420-300, WP003 00). • If code 873 and no 871, do table 2. (A1-F18AC-420-200, WP003 06). | Digital Display Indicator • Caution line - R GEN Caution light indicator panel • R GEN Caution light - on |
| 874 thru 879 | Spare Spare | |
| 880 (A) | 1 ➤ Utility battery low (DC Power System) • If no code 881 and U BATT caution light did not remain on, stop troubleshooting. • If no code 881 and U BATT caution light remained on, do troubleshooting procedure (A1-F18AC-FIM-000, WP004 00). • If codes 870 and 871, replace utility battery and charger unit (A1-F18AC-420-300, WP018 00). | Digital Display Indicator • Caution line - U BATT LO Caution light indicator panel • U BATT Caution light - on |
| | 2 ➤ Spare | |
| 881 | 1 ➤ Utility battery and charger unit fail (DC Power System) • Replace utility battery and charger unit (A1-F18AC-420-300, WP019 00). | Digital Display Indicator • Caution line - U BATT LO Caution light indicator panel • U BATT Caution light - on |
| | 2 ➤ Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|--|
| 882 (A) | 1 Emergency battery low (DC Power System) <ul style="list-style-type: none"> If no code 883 and E BATT caution light did not remain on, stop troubleshooting If no code 883 and E BATT caution light remained on, do troubleshooting procedure (A1-F18AC-FIM-000, WP005 00). If codes 870 and 871, replace emergency battery and charger unit (A1-F18AC-420-300, WP020 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - E BATT LO Caution light indicator panel <ul style="list-style-type: none"> E BATT Caution light - on |
| | 2 Spare | |
| 883 | 1 Emergency battery and charger unit fail (DC Power System) <ul style="list-style-type: none"> Replace emergency battery and charger unit (A1-F18AC-420-300, WP020 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - E BATT LO Caution light indicator panel <ul style="list-style-type: none"> E BATT Caution light - on |
| | 2 Spare | |
| 884 | Ground power circuit fail (Power Distribution System) | |
| <p>NOTE</p> <p>A false code 884 will exist if any GND PWR switch on GND PWR control panel assembly is set to ON with an engine-driven generator on line. This condition limited to aircraft 161353 through 162889.</p> | | |
| 885 | Do troubleshooting procedure (A1-F18AC-FIM-000, WP006 00). | |
| | 13 Battery Relay Control Unit Circuit Fail (DC Power System) <ul style="list-style-type: none"> Do DC Power System Test (A1-F18AC-420-200, WP004 00). | |
| 886 thru 887 | Spare | |
| 888 | Spare | |
| 888 | Test value | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|--|
| 889 | Canopy switches disagree (Canopy System) <ul style="list-style-type: none"> • On F/A-18A, do table 1 (A1-F18AC-120-200, WP011 00). • On F/A-18B, do table 1 (A1-F18AC-120-200, WP012 00). | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - CANOPY |
| 890 (G) | Right MLG WOW switch fail (Landing Gear System) <ul style="list-style-type: none"> • If codes 890 and 195 with FCES LIN code 100, replace right MLG Weight On Wheels (WOW) switch (A1-F18AC-130-300, WP014 00). • If code 890 only, do table 1 (A1-F18AC-130-200, WP007 16). | LDG GEAR control handle <ul style="list-style-type: none"> • Could not be set to UP without pressing DOWN LOCK ORIDE |
| 891 (G) | Left MLG WOW switch fail (Landing Gear System) <ul style="list-style-type: none"> • If codes 891 and 195 with FCES BLIN code 077, replace left MLG Weight On Wheels (WOW) switch (A1-F18AC-130-300, WP014 00). • If code 891 only, do table 2 (A1-F18AC-130-200, WP007 16). | LDG GEAR control handle <ul style="list-style-type: none"> • Could not be set to UP without pressing DOWN LOCK ORIDE |
| 892 (G) | NLG WOW switch fail (Landing Gear System) <ul style="list-style-type: none"> • If codes 892 and 195 with FCES BLIN code 076, replace NLG Weight On Wheels (WOW) switch (A1-F18AC-130-300, WP015 00). • If code 892 only, do table 3 (A1-F18AC-130-200, WP007 16). | LDG GEAR control handle <ul style="list-style-type: none"> • Could not be set to UP without pressing DOWN LOCK ORIDE Nose landing gear <ul style="list-style-type: none"> • Does not retract |
| 893 (G) | Right MLG downlock switch fail (Landing Gear System) <ul style="list-style-type: none"> • If codes 893 and 195 with FCES BLIN code 075, replace right MLG downlock switch (A1-F18AC-160-300, WP012 00). • If code 893 only, do table 1 (A1-F18AC-130-200, WP007 19). | LDG GEAR control handle <ul style="list-style-type: none"> • Red light Flaps, landing gear and stores indicator panel <ul style="list-style-type: none"> • RIGHT downlock light does not agree with R MLG posi- tion |
| 894 (G) | Left MLG downlock switch fail (Landing Gear System) <ul style="list-style-type: none"> • If codes 894 and 195 with FCES BLIN code 074, replace left MLG downlock switch (A1-F18AC-130-300, WP012 00). • If code 804 only, do table 2 (A1-F18AC-130-200, WP007 19). | LDG GEAR control handle <ul style="list-style-type: none"> • Red light Flaps, landing gear and stores indicator panel <ul style="list-style-type: none"> • LEFT downlock light does not Agree with L MLG position |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|---|
| 895 (G) | NLG downlock switch fail (Landing Gear System) <ul style="list-style-type: none"> If codes 895 and 195 with FCES BLIN code 073, replace NLG downlock switch (A1-F18AC-130-300, WP013 00). If code 895 only, do table 3 (A1-F18AC-130-200, WP007 19). | LDG GEAR control handle <ul style="list-style-type: none"> Red light Flaps, landing gear and stores indicator panel <ul style="list-style-type: none"> NOSE downlock light does not agree with NLG position |
| 896 (G) | 8 Right MLG uplock switch fail (Landing Gear System) <ul style="list-style-type: none"> If code 896 only, do table 1 (A1-F18AC-130-200, WP007 22). If codes 896 and 910, replace right MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle <ul style="list-style-type: none"> Red light Audible thumping |
| 897 (G) | 8 Left MLG uplock switch fail (Landing Gear System) <ul style="list-style-type: none"> If code 897 only, do table 2 (A1-F18AC-130-200, WP007 22). If codes 897 and 911, replace left MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle <ul style="list-style-type: none"> Red light Audible thumping |
| 898 (G) | 8 NLG uplock switch fail (Landing Gear System) <ul style="list-style-type: none"> If code 898 only, do table 3 (A1-F18AC-180-200, WP007 22). If codes 898 and 912, replace uplock switch (A1-F18AC-130-300, WP015 00). | LDG GEAR control handle <ul style="list-style-type: none"> Red light Audible thumping |
| 899 (G) | 8 Launch bar retract proximity switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-130-200, WP011 06). | LH Advisory and threat warning indicator panel <ul style="list-style-type: none"> LAUNCH BAR warning light - on Nose landing gear <ul style="list-style-type: none"> Does not retract |
| 900 (G) | Landing gear control unit emergency power fail (Landing Gear System) <ul style="list-style-type: none"> Do table 3 (A1-F18AC-130-200, WP007 25). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 901 | Left MLG planing link proximity switch fail (Landing Gear System) • Do table 1 (A1-F18AC-130-200, WP007 25). | Digital Display Indicator • Caution line - ANTI SKID |
| 902 | Right MLG planing link proximity switch fail (Landing Gear System) • Do table 2 (A1-F18AC-130-200, WP007 25). | |
| 903 | Hard Landing Data (Landing Gear System) • Do Hard Landing Evaluation (A1-F18AC-LMM-030, WP004 00). | |
| 904 | Hard Landing Inspection (Landing Gear System) • Do Hard Landing Evaluation (A1-F18AC-LMM-030, WP004 00). | |
| 905 | Skid control box assembly fail (Wheel Brake and Anti Skid System) • If codes 905, 906, 907 and 908 are displayed, do substeps below: (For component locator, refer to (A1-F18AC-180-500, WP008 00.) 1. Turn off electrical power (A1-F18AC-LMM-000). 2. Set EMERG PARK BRK control to on. 3. On LH vertical console control panel, make sure anti skid switch is off. 4. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). 5. On GND PWR control panel, make sure GND PWR 1 switch is set to AUTO. 6. On GND PWR control panel, set and hold GND PWR 3 switch to B ON for 3 seconds. 7. On LH vertical console control panel, set ANTI SKID switch to ON. | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|----------------|--|---|
| 905 (Cont.) | <p>8. If codes 905, 906, 907 and 908 do not reappear on Digital Display Indicator ID-2150/ASM-612, anti skid system is operating normally.</p> <p>9. If codes 905, 906, 907 and 908 reappear, do table 1 (A1-F18AC-130-200, WP008 09).</p> <ul style="list-style-type: none"> If code 905 only or codes 905, 907 and 905, in any combination, are displayed, do table 1 (A1-F18AC-130-200, WP008 09). | |
| 906 | <p>Skid control system valve fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> If code 906 and codes 905, 907, and 908 exist, see maintenance action for code 905. If code 906 only, do table 1 (A1-F18AC-130-200, WP008 12). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - ANTI SKID |
| 907 | <p>Left motion pickup transducer fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> If code 907 and codes 905, 906, and 908 exist, see maintenance action for code 905. If codes 907, 905 and 908, in any combination, are displayed, do table 1 (A1-F18AC-130-200, WP008 09). If code 907 only, do table 2 (A1-F18AC-130-200, WP008 12). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - ANTI SKID |
| 908 | <p>Right motion pickup transducer fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> If code 908 and codes 905, 906, and 907 exist, see maintenance action for code 905. If codes 908, 905 and 907, in any combination, are displayed, do table 1 (A1-F18AC-130-200, WP008 19). If code 908 only, do table 3 (A1-F18AC-130-200, WP008 12). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - ANTI SKID |
| 909 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 910 (A) | Right MLG uplock did not occur (Landing Gear System) • If no code 896, do table 1, (A1-F18AC-130-200, WP007 30). • If code 896, replace right MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle • Red light Audible thumping |
| 911 (A) | Left MLG uplock did not occur (Landing Gear System) • If no code 897, do table 2, (A1-F18AC-130-200, WP007 30). • If code 897, replace left MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle • Red light Audible thumping |
| 912 (A) | NLG uplock did not occur (Landing Gear System) • If no code 898, do table 3, (A1-F18AC-130-200, WP007 30). • If code 898, replace NLG uplock switch (A1-F18AC-130-300, WP017 00). | LDG GEAR control handle • Red light Audible thumping |
| 913 | Spare | |
| 914 | Spare | |
| 915 (G) | Landing gear control unit fail (Landing Gear System) • Do table 4 (A1-F18AC-130-200, WP007 25). | |
| 916 (A) | Arresting gear damper pressure low (Arresting Gear System) Service Arresting hook actuator (A1-F18AC-LMM-000). • If servicing procedure indicates servicing not required, do table 1 (A1-F18AC-130-200, WP010 04). | |
| 917 thru 924 | Spare | |
| 925 | Negative G Exceeded • Do negative G exceeded procedure (A1-F18AC-LMM-030). | |
| 926 | Strain recording terminated (Maintenance Status Display and Recording System) • With or without codes 169, 600, 601, 602, 603, 604 and 605 do table 1 (A1-F18AC-580-200, WP006 00). | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 927 | G - LIM Function Overridden • No maintenance action required. | Digital Display Indicator • Caution line - G - LIM OVRD |
| 928 thru 940 | Spare Spare | |
| 941 | Fuel dump open when commanded closed (Internal Fuel Transfer System) • Do table 1 (A1-F18AC-460-200, WP022 02). | Digital Display Indicator • Caution line - DUMP OPEN |
| 942 | Right fuel shutoff valve closed (Internal Fuel Transfer System) • If an abnormal or inadvertent engine shutdown occurred using FIRE button on RH advisory and threat warning indicator panel, do the steps below: 1. Reset FIRE button. 2. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). 3. Turn on electrical power (A1-F18AC-LMM-000). • If code does not reappear, stop troubleshooting. • If code 942 still displayed, do table 9 (A1-F18AC-460-200, WP012 07). | |
| 943 | Left fuel shutoff valve closed (Internal Fuel Transfer System) • If an abnormal or inadvertent engine shutdown occurred using FIRE button on LH advisory and threat warning indicator panel, do the steps below: 1. Reset FIRE button. 2. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). 3. Turn on electrical power (A1-F18AC-LMM-000). If code does not reappear, stop troubleshooting. • If code 943 still displayed, do table 10, (A1-F18AC-460-200, WP012 07). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 944 | <p>10 → Left or right fuel boost low with crossfeed valve closed</p> <p>10 → Left or right shutoff valves closed with crossfeed valve open</p> <p>10 → Left and right fuel boost high with crossfeed valve open (Engine Fuel Supply System)</p> <ul style="list-style-type: none"> If an abnormal or inadvertent engine(s) shutdown occurred using FIRE button(s) on LH/RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> Reset FIRE button Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). Turn on electrical power (A1-F18AC-LMM-000). <p>If code does not reappear, stop troubleshooting.</p> <ul style="list-style-type: none"> If code 944, do table 11 (A1-F18AC-460-200, WP012 07). 11 → Code 944 not displayed. Crossfeed valve closed. (Engine Fuel Supply System) If an abnormal or inadvertent engine(s) shutdown occurred using FIRE button(s) on LH/RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> Reset FIRE button. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). Turn on electrical power (A1-F18AC-LMM -000). <p>If code reappears, stop troubleshooting</p> <ul style="list-style-type: none"> If code not displayed, do table 12 (A1-F18AC-460-200, WP012 07). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - L or R BOOST <p>Digital Display Indicator ID-2150/ASM-612</p> <ul style="list-style-type: none"> Code 942 Code 943 |
| | | Feed tank imbalance |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 945 | Tank 3 failure (Internal Fuel Transfer System) • If any one, or combination of, 946, 947 or 948 codes are displayed with code 945, do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00). • If single 945 code is displayed, do No. 3 Fuel Tank Cycle Test (A1-F18AC-460-200, WP012 05). | Digital Display Indicator • Caution line - FUEL LO |
| 946 | Tank 2 failure (Internal Fuel Transfer System) • If any one, or combination of, 945, 947 or 948 codes are displayed with 946, do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00). • If single 946 code is displayed, do No. 2 Fuel Tank Cycle Test (A1-F18AC-460-200, WP012 04). | Digital Display Indicator • Caution line - FUEL LO |
| 947 | Tank 4 failure (Internal Fuel Transfer System) • If any one, or combination of, 945, 946 or 948 codes are displayed with code 947 do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00). • If single 947 code is displayed, do tables in order listed below until malfunction has been isolated. a. Transfer Leak Test (A1-F18AC-460-200, WP012 02). b. No. 4 Fuel Tank Transfer Test (A1-F18AC-460-200, WP012 06). | Digital Display Indicator • Caution line - CG • Caution line - FUEL LO |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 948 | <p>Tank 1 failure (Internal Fuel Transfer System)</p> <ul style="list-style-type: none"> • If any one, or combination of, 945, 946, or 947 codes are displayed with code 948 do Internal Fuel Transfer and Engine Fuel Supply System (A1-F18AC-460-200, WP012 00). • If single 948 code is displayed, do tables in order listed below until malfunction has been isolated. <ol style="list-style-type: none"> a. Transfer Leak Test (A1-F18AC-460-200, WP012 02). b. No. 1 Fuel Tank Transfer Test (A1-F18AC-460-200, WP012 03). c. CG System Test (A1-F18AC-460-200, WP035 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • Caution line - FUEL LO |
| 949 | Spare | |
| 950 | Spare | |
| 951 | <p>Fuel external tank overpressure (External Fuel System)</p> <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-460-200, WP010 00). | |
| 952 thru 979 | Spare | |
| 980 (F) | <p>Left engine oil level low (Basic Engine System)</p> <ul style="list-style-type: none"> • Use engine oil sight gage to determine engine oil level. • If oil level low, service left engine oil system (A1-F18AC-PCM-000). • If code exists after servicing, do table B (A1-F18AC-270-200, WP011 00). | |
| 981 (F) | <p>Right engine oil level low (Basic Engine System)</p> <ul style="list-style-type: none"> • Use engine oil sight gage to determine engine oil level. • If oil level low, service right engine oil system (A1-F18AC-PCM-000). • If code exists after servicing, do table 6 (A1-F18AC-270-200, WP011 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|---------------------------------|
| 982 (F) | <div>3</div> Left AMAD oil level low (Secondary Power System) <ul style="list-style-type: none"> • If left AMAD oil level indicator (door 53L) indicates oil level low, service AMAD oil system (A1-F18AC-PCM-000). • If left AMAD oil level indicator (door 53L) does not indicate oil level low, do table 1 (A1-F18AC-240-200, WP005 05). | |
| 983 (F) | <div>3</div> Right AMAD oil level low (Secondary Power System) <ul style="list-style-type: none"> • If right AMAD oil level Indicator (door 53R) indicates oil level low, service AMAD oil system (A1-F18AC-PCM-000). • If right AMAD oil level indicator (door 53R) does not indicate oil level low, do table 2 (A1-F18AC-240-200, WP005 05). | |
| 984 | APU oil level low | |
| <div>CAUTION</div> <p>Do not operate APU when this code exists.</p> | | |
| (F) | (Secondary Power System) <ul style="list-style-type: none"> • When APU oil level sight gage (door 52) indicates APU oil level low, service APU oil system (A1-F18AC-PCM-000). • If APU oil level sight gage (door 52) does not indicate APU oil level low, do table 7 (A1-F18AC-240-200, WP005 00). | |
| 985 (F) | Radar liquid cooling system liquid level low | |
| <div>CAUTION</div> <p>Do not operate radar when this code exists. If code 985 and radar liquid coolant was ingested into engine intake, engine must be water washed (A1-F18AC-LMM-000) and borescope-hot section performed (A1-F18AC-270-300 WP060 00).</p> | | |

Table 1. Maintenance Codes (Continued)


| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|--|---|
| 986 | (Radar Liquid Cooling System) • When RDR LCS SVCS RES- ERVOIR LEVEL indicator (door B) is white (level low), service radar liquid cooling system (A1-F18AC-LMM-000). • If RDR LCS SVCS RESERVOIR LEVEL indicator (door 6) is black (level full), do troubleshooting pro- cedure (A1-F18AC-FIM-000, WP162 00). | |
| 987 | Spare | |
| 988 (F) | Fire extinguisher low | |
| <div style="text-align: center;">  <p>Do not start APU or engines when this code exists.</p> </div> | | |
| 989 thru 994 | (Fire Extinguishing System) • Replace fire extinguisher tank (A1-F18AC-240-300, WP032 00) and do test for fluids low maintenance codes (A1-F18AC-PCM-000). • If code exists after replacing fire extinguisher tank, do table 6 (A1-F18AC-240-200, WP009 00). | |
| 995 (F) | Fluids test complete | |
| 996 | LOX low (40%) (Oxygen System) • If code 996 exists and Liquid Oxygen Quantity Indicator GMU-75/A indicates liquid oxygen is less than 4 liters, service liquid oxygen converter (A1-F18AC-LMM-000). • If code 996 exists and Liquid Oxy- gen Quantity Indicator GMU-75/A indicates liquid oxygen is greater than 4 liters, troubleshoot using Oxygen System Schematic, (A1-F18AC-410-500, WP016 00). | Digital Display Indicator • Caution line - OXY LO LH advisory and threat warning indicator panel • MASTER CAUTION light - on |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 997 | Hydraulic system 1 oil level low (Hydraulic System) <ul style="list-style-type: none"> If code 997 exists and hydraulic reservoir gage indicates oil level is low, service hydraulic system 1 reservoir (A1-F18AC-PCM-000). If code 997 exists and hydraulic reservoir gage indicates FULL, troubleshoot using Hydraulic System Schematic, (A1-F18AC-450-600, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - HYD 1A Caution line - HYD 1B |
| 998 | Hydraulic system 2 oil level low (Hydraulic System) <ul style="list-style-type: none"> If code 998 exists and hydraulic reservoir gage indicates oil level is low, service hydraulic system 2 reservoir (A1-F18AC-PCM-000). If code 998 exists and hydraulic reservoir gage indicates FULL, troubleshoot using Hydraulic System Schematic, (A1-F18AC-450-500, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - HYD 2A Caution line - HYD 2B |
| 999 | Hydraulic system fluid level NABIT not done (Hydraulic System) <ul style="list-style-type: none"> Ignore when code 997 or 998 exists. Determine if hydraulic system requires service (A1-F18AC-PCM-000). | |

LEGEND

- 1 161353 THRU 161528.
- 2 161702 AND UP.
- 3 Indications valid only if test is done with AMAD not rotating and within 15 minutes after AMAD shutdown. Ignore codes 982 and 983 at all other times.
- 4 When a combination of two or more avionic mux bus 1 fail maintenance codes exists (001, 002, 004, 006, 014, 015, 017, 018, 029, 030, and ON 161353 THRU 161528, 019), malfunction may be avionic mux wiring. Refer to table 2 for the prescribed maintenance action. If the combination of maintenance codes does not appear in table 2, do the maintenance action prescribed in table 1 for each maintenance code. Before troubleshooting MC1 and/or MC2 cautions, make sure Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) is not removed from the aircraft or connectors disconnected.


Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---------------------------------|
| 5 | When a combination of two or more avionic mux bus 2 fail maintenance codes exists (003, 005, 007, 010, 012, 016, 029, ON 161702 AND UP 019 and 020), malfunction may be avionic mux wiring. Refer to table 3 for the prescribed maintenance action. If the combination of maintenance codes does not appear in table 3, do the maintenance action prescribed in table 1 for each maintenance code. Before troubleshooting MC1 and/or MC2 cautions, make sure Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) is not removed from the aircraft or connectors disconnected. | |
| 6 | Deleted. | |
| 7 | Deleted. | |
| 8 | If codes 896, 897, 898, and 899 occur at same time, RESET Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). Turn off electrical power, turn on electrical power (A1-F18AC-LMM-000) and on GND PWR control panel assembly, set and hold 1 switch to A ON for 3 seconds. If codes do not occur again, ignore codes. If codes occur again or codes occur separately, do recommended maintenance action. | |
| 9 | Do maintenance BIT (A1-F18AC-742-200, WP007 00). | |
| 10 | 163119 AND UP; ALSO 161353 THRU 161924 BEFORE F/A-18 IAFC-056 OR 161353 THRU 163118 AFTER F/A-18 AFC 070. | |
| 11 | 161353 THRU 161924 AFTER F/A-18 IAFC-056, OR 161353 THRU 163118 BEFORE F/A-18 AFC 070. | |
| 12 | 161702 AND UP. If more than one ALR-67 code exists, do built-in test (A1-F18AC-760-200, WP031 00). | |
| 13 | 163092 AND UP. | |
| 14 | 161353 THRU 161987. | |
| 15 | 162394 AND UP. | |
| 16 | 161354 THRU 161947. | |
| 17 | 162402 AND UP. | |

Table 2. Avionic Mux Bus 1 Fail Troubleshooting

| Maintenance Code ◀ 2 | | | | | | | | | | | Maintenance Action |
|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 001 | 002 | 004 | 006 | 014 | 015 | 017 | 018 | 019 | 029 | 030 | |
| X | X | X | X | X | X | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP115 00). |
| X | | X | X | X | X | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP116 00). |
| | X | | X | X | X | | | X | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: WTF001 pin 263 to WTF005 pin 36 WTF001 pin 265 to WTF005 pin 37 |

Table 2. Avionic Mux Bus 1 Fail Troubleshooting (Continued)

| Maintenance Code  2 | | | | | | | | | | | Maintenance Action |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 001 | 002 | 004 | 006 | 014 | 015 | 017 | 018 | 019 | 029 | 030 | |
| | X | | X | | X | | | X | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: WTF004 pin 4 to WTF005 pin 36 WTF004 pin 6 to WTF005 pin 37 |
| | | | X | | X | | | X | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: ON 161353 THRU 161528 WTF001 pin 260 to WTF006 pin 144 WTF001 pin 262 to WTF006 pin 145. ON 161702 AND UP WTF001 pin 260 to 84P-F002F pin S002. WTF001 pin 262 to 84P-F002F pin S003 |
| | X | | | | X | | | X | X | | Repair defective wiring (A1-F18AC-WRM-000) from: WTF004 pin 4 to WTF006 pin 147 WTF004 pin 6 to WTF006 pin 148. |
| | | | X | | X | | | | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: WTF006 pin 144 to 84P-F002F pin S002 WTF006 pin 145 to 84P-F002F pin S003. |
| | | | X | | | | | | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: 84P-F002F S002 to WTF002 pin 109 84P-F002F S003 to WTF002 pin 110 |
| | X | | | | | | | | X | | Do table 1 (A1-F18AC-FIM-000, WP117 00). |

LEGEND

1. X in Maintenance Code column indicates code was set.


 2 On 161353 THRU 161528, code 019 exists on channel 1.

Table 3. Avionic Mux Bus 2 Fail Troubleshooting



| Maintenance Code  4  3 | | | | | | | | | Maintenance Action |
|--|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 020 | 019 | 003 | 005 | 007 | 010 | 012 | 016 | 029 | |
| X | X | X | X | X | X | X | X | X | On 161925 AND UP: a. If code 020 does not exist, do table 1 (A1-F18AC-FIM-000, WP119 00). |

Table 3. Avionic Mux Bus 2 Fail Troubleshooting (Continued)

| <div> <div>4</div> <div>3</div> <div>Maintenance Code</div> </div> | | | | | | | | | Maintenance Action |
|--|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 020 | 019 | 003 | 005 | 007 | 010 | 012 | 016 | 029 | |
| | | | | | | | | | b. If code 020 also exists, use Avionic Mux Bus 2X Schematic (A1-F18AC-FIM-000, WP114 00) to isolate defective wiring (A1-F18A()-WDM-000) from: 83P-E001D pin 23 to 62P-E006B pin 30 83P-E001D pin 24 to 62P-E006B pin 1 On 161353 THRU 161924, do table 1 (A1-F18AC-FIM-000, WP119 00). |
| | X | X | X | X | X | X | X | X | Malfunction is isolated to one of the below: a. 60J-A001B disconnected. b. Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) not installed. |
| | X | X | X | X | | X | X | X | Malfunction is isolated to one of the below: a. 60J-A001B disconnected. b. Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) not installed. |
| | | X | X | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP127 00). |
| | X | X | | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP118 00). |
| | | X | X | X | X | X | | X | Using Avionic Mux Bus 2Y Schematic (A1-F18AC- FIM-000, WP114 00), isolate defective wiring (A1-F18A()-WDM-000) from: 52J-J029 pin S009 to 80P-J002A pin S004 52J-J029 pin S010 to 80P-J002A pin S003 |
| | X | X | | X | | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP120 00). |
| | | | X | X | X | X | | X | Do table 1 (A1-F18AC-FIM-000, WP122 00). |
| | | | X | X | | X | | X | Do table 1 (A1-F18AC-FIM-000, WP121 00). |
| | X | | | X | | X | X | X | Using Avionic Mux Bus 2X Schematic (A1-F18AC-FIM-000, WP114 00), isolate defective wiring (A1-F18A()-WDM-000) from: |

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

NOSE WHEELWELL DDI MAINTENANCE CODE LISTING

EFFECTIVITY: F/A-18A AND F/A-18B AFTER F/A-18 AFC 225 OR F/A-18 AFC 231

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|----------|
| Avionic Mux Bus 1 Fails | 2 |
| Avionic Mux Bus 2 Fails | 2 |
| Avionic Mux Bus 1 Fail Troubleshooting, Table 2 | 65 |
| Avionic Mux Bus 2 Fail Troubleshooting, Table 3 | 66 |
| Introduction | 1 |
| Maintenance Codes, Table 1 | 3 |
| Multiple Avionic Mux Bus Fail Troubleshooting | 2 |
| Avionic Mux Bus 1 Fails | 2 |
| Avionic Mux Bus 2 Fails | 2 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|-----------|---|-----------------|---------|
| F/A-18 AFC 56 | - | Fuel System Components Replacement and System Inspection (ECP 00158) | 1 Jun 86 | |
| F/A-18 AFC 70 | 1 Dec 89 | Incorporation of Motive Flow Boost Pump Pressure Switch (ECP 00158 R2) | 1 Jun 86 | |
| F/A-18 AFC-27 | 28 Apr 86 | Leading Edge Flap/Control Stick Changes (ECP MDA-F/A-18-00044) | 15 Jan 85 | |
| F/A-18 AFC 225 | - | Five (5) Avionics Multiplex Bus Upgrade, Incor- poration of (ECP MDA-F/A-18 0529) | 1 Jun 02 | |
| F/A-18 AFC 231 | - | Embedded Global Positioning System (GPS)/In- ertial Navigation System (INS) (EGI), Incorpora- tion of (ECP MDA-F/A-18 0521) | 1 Jun 02 | |

1. INTRODUCTION.

2. All built in test (BIT) maintenance codes are identified in this work package. A description, the related system, and the recommended maintenance action are provided for each maintenance code.

3. When flagnote instructions are associated with a MMP code, the instructions are to be done before the recommended maintenance action.

4. Letters in the code column identify unique requirements for setting some codes:

M - Maintenance BIT

I - Initiated BIT

P - Periodic BIT

A - Weight Off Wheels

G - Weight On Wheels

F - Fluids Test

5. Some maintenance codes have entries in the possible related indication column. These also are fault indications provided by BIT and appear depending on the type of failure. The related indications are considered corrected when the maintenance codes are cleared.

6. All caution line indications occur with LH advisory and threat warning indicator panel MASTER CAUTION light on and master caution audio. See WP004 00 for descriptions of cautions.

7. MULTIPLE AVIONIC MUX BUS FAIL TROUBLESHOOTING.

NOTE

Before troubleshooting any MC1 and/or MC2 cautions make sure Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) is not disconnected or removed from the aircraft (see table 3 this WP).

8. When multiple avionic mux bus fail maintenance codes (001 thru 030) exist malfunction can be caused by defective avionic mux bus wiring. Using

combinations of maintenance codes tables 2 and 3 provide maintenance actions for isolation of defective avionic mux bus wiring.

9. **AVIONIC MUX BUS 1 FAILS.** Table 2 lists the avionic mux bus 1 fail maintenance codes for the components listed below:

- a. Air Data Computer CP-1334/A (001)
- b. Armament Computer CP-1342/AVQ-9(V) (006)
- c. Command Launch Computer CP-1001/AWG (017)
- d. Control-Converter C-10382/A (004)
- e. Digital Data Computer No. 2 (029)
- f. Left Digital Display Indicator (002)
- g. Receiver-Transmitter RT-1250()/ARC No. 1 (018)
- h. Receiver-Transmitter RT-1250()/ARC No. 2 (019) - ON 161353 THRU 161528
- i. Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) (014)
- j. Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) (015)
- k. Signal Data Recorder RO-508/ASM-612 (030)

10. When more than one avionic mux bus 1 fail maintenance code exists do the maintenance action (table 2) for that combination of codes. When an avionic mux bus fail maintenance code combination exists that is not listed in table 2, do the maintenance action prescribed in table 1 maintenance for each maintenance code.

11. **AVIONIC MUX BUS 2 FAILS.** Table 3 lists the avionic mux bus 2 fail maintenance codes for the components listed below:

- a. Computer-Power Supply CP-1325/APG-65 (010)
- b. Controller-Processor C-10661/AAS-38 (007)
- c. Digital Data Computer No. 2 (029)

- d. Embedded GPS/INS AN/ASN-172 (025/026)
- e. Mounting-Adapter MT-6082/ASQ-173 (012)
- f. Receiver-Transmitter RT-1250()/ARC No. 2 (019) - on 161702 and up
- g. Receiver-Transmitter-Processor RT-1379()/ASW (016)
- h. Right Digital Display Indicator (003)

- i. Countermeasures Computer CP-1293/ALR-67(V) - on 161925 and up (020)

12. When more than one avionics mux bus 2 fail maintenance code exists do the maintenance action (table 3) for that combination of codes. When an avionics mux bus fail maintenance code combination exists that is not listed in table 3, do the maintenance action prescribed in table 1 for each maintenance code.

Table 1. Maintenance Codes

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 000 | Test value. | |
| 001 | 4 ➡ Air Data Computer CP-1334/A Avionics Mux Bus 1X/1Y fail (Air Data Computer System) <ul style="list-style-type: none"> Replace Air Data Computer CP-1334/A (A1-F18AC- 560-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - NO GO |
| 002 | 4 ➡ Left Digital Display Indicator Avionics Mux Bus 1X/1Y fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Left Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator IP-1350/A <ul style="list-style-type: none"> ADV - BIT LDDI BIT status message - NO GO Left Digital Display Indicator <ul style="list-style-type: none"> STANDBY flashing |
| 003 | 5 ➡ Right Digital Display Indicator Avionics Mux Bus 2X/2Y fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Right Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator IP-1350/A <ul style="list-style-type: none"> ADV - BIT RDDI BIT status message - NO GO Right Digital Display Indicator <ul style="list-style-type: none"> STANDBY flashing |
| 004 | 4 ➡ Control-Converter C-10382/A Avionics Mux Bus 1X/1Y fail (Mission Computer System) <ul style="list-style-type: none"> Replace Control-Converter C-10382/A (A1-F18AC- 741-300, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT CSC BIT status message - NO GO TCN BIT status message - DEGD IBS BIT status message - DEGD ICS BIT status message - DEGD ILS BIT status message - DEGD AUG BIT status message - DEGD BCN BIT status message - DEGD IFF BIT status message - DEGD RALT BIT status message - DEGD Caution line - CNI |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 005 | <p>5 Inertial Navigation Set AN/ASN-130 () Avionic Mux Bus 2X/2Y fail (Inertial Navigation System)</p> <ul style="list-style-type: none"> Do table 1 (A1-F18AC-730-200, WP016 00, table 1) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT INS BIT status message - NO GO Caution line - INS ATT HUD display - flashing velocity vector |
| 006 | <p>4 Armament Computer CP-1342/AYQ-9(V) Avionic Mux Bus 1X/1Y fail (Stores Management System)</p> <ul style="list-style-type: none"> Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - NO GO |
| 007 | <p>5 Detecting Set AN/AAS-38 Avionic Mux Bus 2X/2Y fail (Forward Looking Infrared System)</p> <ul style="list-style-type: none"> Replace Controller-Processor C-10361/AAS-38 (A1-F18AC-744-300, WP009 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FLIR BIT status message - NO GO |
| 008 | <p>18 Mission data loader Avionic Mux Bus 4x/4u fail</p> <ul style="list-style-type: none"> Replace Mission Data Loader/ASQ-215 (A1-F18AC-580-300, WP007 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV-BIT MU BIT status message - MUX FAIL |
| 009 | Spare | |
| 010 | <p>5 Computer Power Supply CP-1325/APG-65 Avionic Mux Bus 2X/2Y fail (Radar System)</p> <ul style="list-style-type: none"> If code 10 and code 40 or 43, do maintenance action for code 40 or 43. If code 10 and radar not ready indication remained continuously on radar display after power cycle was attempted, replace Computer-Power Supply CP-1325/APG-65 (A1-F18AC-742-300, WP005 00). If code 10, radar restarted momentarily after power cycled, and radar not ready indication on radar display was replaced by normal radar mode options, replace Radar Target Data Processor CP-1326/APG-65 (A1-F18AC-742-300, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - NO GO |
| 011 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 012 | <p>5 Laser Detector-Tracker-Strike Camera Set AN/ASQ-173 Avionic Mux Bus 2X/2Y fail (Laser Detector Tracker System)</p> <ul style="list-style-type: none"> Replace Interconnecting Box J-3651/ASQ-173 (A1-F18AC-743-300, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT LST BIT status message - NO GO CAM BIT status message - NO GO |
| 013 | Spare | |
| 014 | <p>4 Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) Avionic Mux Bus 1X/1Y fail (Electronic Flight Control System)</p> <ul style="list-style-type: none"> Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F001) (A1-F18AC-570-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - NO GO |
| 015 | <p>4 Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) Avionic Mux Bus 1X/1Y fail (Electronic Flight Control System)</p> <ul style="list-style-type: none"> Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F002) (A1-F18AC-570-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT FCSB BIT status message - NO GO |
| 016 | <p>5 Receiver-Transmitter-Processor RT-1379()/ASW Avionic Mux Bus 2X/2Y fail (Data Link System)</p> <ul style="list-style-type: none"> Replace Receiver-Transmitter-Processor RT-1379()/ASW (A1-F18AC-630-300, WP016 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT D/L Bit status message - NO GO |
| 017 | <p>4 Command Launch Computer CP-1001/AWG Avionic Mux Bus 1X/1Y fail (Stores Management System)</p> <ul style="list-style-type: none"> Replace Command Launch Computer CP-1001/AWG (A1-F18AC-740-300, WP010 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - NO GO |
| 018 | <p>4 Receiver-Transmitter RT-1250()/ARC No. 1 Avionic Mux Bus 1X/1Y fail (Communication System)</p> <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 1 (A1-F18AC-600-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - NO GO |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 019 | <div>4 5</div> Receiver-Transmitter RT-1250()/ARC No. 2 Avionic Mux Bus fail (Communication System) <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 2 (A1-F18AC-600-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT COM 2 BIT status message - NO GO |
| 020 | <div>1</div> Spare <div>2 5</div> Countermeasures Com- puter CP-1203/ALR-67(V) Avionic Mux Bus 2X (Countermeasures Warning and Con- trol System) <ul style="list-style-type: none"> Replace Countermeasures Com- puter CP-1283/ALR-67(V) (A1-F18AC-760-300, WP055 00). | |
| 021 thru 023 | Spare | |
| 024 | Aircraft Instrumentation Subsystem Internal (AN/ASQ-T16) Avionic Mux Bus 1X/1Y fail (Aircraft Instrumentation Subsystem Internal) (AISi) | |
| 025 | <div>18</div> EGI-GPS Terminal fail (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 026 | <div>18</div> EGI INS Terminal fail (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 027 thru 028 | Spare | |
| 029 | <div>4 5</div> Digital Data Computer No. 2 Avionic Mux Bus fail (Mission Computer System) <ul style="list-style-type: none"> Replace Digital Data Computer No. 2 (A1-F18AC-741-300, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - MC2 |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---|
| 030 | 4 Signal Data Recorder RO-508/ASM-612 Avionic Mux Bus 1X/Y fail (Maintenance Status Display and Recording System) • Replace Signal Data Recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00). | Digital Display Indicator • ADV - BIT • SDRS BIT status message - NO GO • Caution line - CAUT DEGD |
| 031 | Spare | |
| 032 | Digital Data Computer No. 1 fail (Mission Computer System) • If MC 1 caution on Digital Display Indicator, do table 1 (A1-F18AC-741-200, WP003 00). • Replace Digital Data Computer No. 1 (A1-F18AC-741-300, WP003 00). | Digital Display Indicator • Caution line - MC1 • Backup Cautions Digital Data Computer No. 1 • Fault indicator latched (black and white). |
| 033 | Spare | |
| 034 | Digital Data Computer No. 1 memory alteration (Mission Computer System) • Ignore code if Digital Data Com- puter CP-1539A/AYK-14(V) installed. • Do table 1 (A1-F18AC-SCM-000, WP006 00). | |
| 035 | Spare | |
| 036 | Digital Data Computer No. 2 fail (Mission Computer System) • Replace Digital Data Computer No. 2 (A1-F18AC-741-300, WP004 00). | Digital Display Indicator • Caution line - MC2 • Backup Symbolology (All display formats) Digital Data Computer No. 2 • Fault indicator latched (black and white) |
| 037 | Digital Data Computer No. 2 memory alteration (Mission Computer System) • Ignore code if Digital Data Com- puter CP-1539A/AYK-14(V) installed. • Do table 2 (A1-F18AC-SCM-000, WP006 00). | |
| 038 | Spare | |
| 039 | Spare | |
| 040 | 9 Radar Target Data Processor CP-1326/APG-65 fail (Radar System) • Replace Radar Target Data Proces- sor CP-1326/APG-65 (A1-F18AC-742-800, WP004 00). | Digital Display Indicator • ADV - BIT • RDR BIT status message - DEGD or DEGD OH • RDR display (WP008 00) Radar Target Data Processor CP-1326/APG-65 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|--|--|
| 041 | <p>9 ▶ Radar Transmitter T-1377/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> • Replace Radar Transmitter T-1377/APG-65 (A1-F18AC-742-300, WP007 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH • RDR display (WP008 00) <p>Radar Transmitter T-1377/APG-65</p> <ul style="list-style-type: none"> • Fault indicator latched (black And white) |
| 042 | <p>9 ▶ Radar Receiver-Exciter R-2089/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> • Replace Radar Receiver-Exciter R-2089/APG-65 (A1-F18AC-742-300, WP006 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH • RDR display (WP008 00) <p>Radar Receiver-Exciter R-2089/APG-65</p> <ul style="list-style-type: none"> • Fault indicator latched (black And white) |
| 043 | <p>9 ▶ Computer-Power Supply CP-1325/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> • Replace Computer-Power Supply CP-1325/APG-65 (A1-F18AC-742-300, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH • RDR display (WP008 00) <p>Computer-Power Supply CP-1325/APG-65</p> <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 044 | <p>9 ▶ Antenna AS-3254/APG-65 fail (Radar System)</p> <ul style="list-style-type: none"> • If codes 044 and 045, do maintenance action for code 45. • If code 044 and no 045, do radar system initiated BIT (A1-F18AC-742-200, WP004 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH • RDR display (WP008 00) <p>Antenna AS-3254/APG-65</p> <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 045 | <p>9 ▶ Antenna servo electronics gimbal assembly fail (Radar System)</p> <ul style="list-style-type: none"> • Replace antenna servo electronics gimbal assembly (A1-F18AC-742-300, WP010 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH • RDR display (WP008 00) |
| 046 | <p>Transmitter coolant flow low (Radar System)</p> <ul style="list-style-type: none"> • If codes 046 and 841, do troubleshooting procedures (A1-F18AC-FIM-000, WP021 00). • If code 046 and no 841, do troubleshooting procedure (A1-F18AC-FIM-000, WP032 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH |
| 047 (A) | <p>Waveguide pressure low (Radar System)</p> <ul style="list-style-type: none"> • Do table 5 (A1-F18AC-742-200, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH |
| 048 | <p>Weight off wheels/inflight disagree (Radar System)</p> <ul style="list-style-type: none"> • Do table 7 (A1-F18AC-742-200, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)








| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 049 thru 051 | Spare Spare | |
| 052 (P) | Do initiated BIT (Radar System) <ul style="list-style-type: none"> • If code 052 and any code 040 thru 045, do maintenance action for codes 040 thru 045. • If code 052 and no codes 040 thru 045, do radar system initiated BIT (A1-F18AC-742-200, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD OH |
| 053 thru 060 | Spare | |
| 061 |  EGI data freeze (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 062 |  GPS Avionic Mux Bus 2x/2y fail (Global Positioning System) <ul style="list-style-type: none"> • Replace GPS Receiver (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • GPS BIT status message - MUX FAIL |
| 063 |  GPS Receiver fail (Global Positioning System) <ul style="list-style-type: none"> • Replace GPS Receiver (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • GPS BIT status message - DEGD |
| 064 |  GPS Battery fail (Global Positioning System) <ul style="list-style-type: none"> • Replace batteries in GPS Receiver (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • GPS BIT status message - OP GO |
| 065 |  GPS Key Parity error (Global Positioning System) <ul style="list-style-type: none"> • Reload data keys (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - PCODE |
| 066 |  GPS Key Incorrect (Global Positioning System) <ul style="list-style-type: none"> • Reload data keys (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - PCODE |
| 067 |  GPS Keys Not Loaded (Global Positioning System) <ul style="list-style-type: none"> • Load data keys (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - PCODE |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|--|
| 068 | Radar system launch initiated failed (Radar System) • Do table 4 (A1-F18AC-742-200, WP009 00). | |
| 069 (A) | Emergency mode activated (Radar System) • Emergency radar mode of operation was selected. • If not confirmed, do table 1 (A1-F18AC-742-200, WP009 00). | |
| 070 | Armament Computer CP-1342/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Armament Computer CP-1342/AYQ-9(V) • Fault indicator latched (black and white) |
| 071 | Left Wingtip Command Signal Encoder Decoder KY-851/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Left Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V) • Fault indicator latched (black and white) |
| 072 | Left Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Left Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) • Fault indicator latched (black and white) |
| 073 | Left Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Left Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) • Fault indicator latched (black and white) |
| 074 | Left Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Left Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) • Fault indicator latched (black and white) |
| 075 | Spare | |
| 076 | Right Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|---|
| 077 | Right Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Inboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) • Fault indicator latched (black and white) |
| 078 | Right Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Outboard Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) • Fault indicator latched (black and white) |
| 079 | Right Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V) fail (Stores Management System) • Do table 1 (A1-F18AC-740-200, WP010 08). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Right Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V) • Fault indicator latched (black and white) |
| 080 | Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) fail (Stores Management System) • Replace Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) (A1-F18AC-740-800, WP011 00). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) • Fault indicator latched (black and white) |
| 081 | Electrical Fuzing Power Supply PP-6419/AWW-4(V) fail (Stores Management System) • Replace Electrical Fuzing Power Supply PP-6419/AWW-4(V) (A1-F18AC-740-300, WP012 00). | Digital Display Indicator • ADV - BIT • SMS BIT status message - DEGD or DEGD OH |
| 082 (M) | Emergency Jettison switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 083 (M) | Select Jettison panel switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 084 (M) | Trigger switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |
| 085 (M) | Bomb release switch fail on (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 086 thru 094 | Spare Spare | |
| 095 | Left Digital Display Indicator fail (Multipurpose Display Group) • Replace left Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator • ADV - BIT Right Digital Display Indicator • LDDI BIT status message - DEGD 1 Left Digital Display Indicator • Fault indicator latched (black and white) |
| 096 | Right Digital Display Indicator fail (Multipurpose Display Group) • Replace right Digital Display Indicator (A1-F18AC-745-300, WP004 00). | Horizontal Indicator • ADV - BIT • RDDI BIT status message - DEGD 1 Right Digital Display Indicator • Fault indicator latched (black and white) |
| 097 | Horizontal Indicator IP-1350/A fail (Multipurpose Display Group) • Replace Horizontal Indicator IP-1350/A (A1-F18AC-745-300, WP006 00). | Digital Display Indicator • ADV - BIT • HSD BIT status message - DEGD 1 Horizontal Indicator IP-1350/A • Fault indicator latched (black and white) |
| 098 | Head-Up Display Unit AN/AVQ-28 fail (Multipurpose Display Group) • Replace Head-Up Display Unit AN/AVQ-28 (A1-F18AC-745-300, WP003 00). | Digital Display Indicator • ADV - BIT • HUD BIT status message- DEGD Head-Up Display Unit AN/AVQ-28 • Fault indicator latched (black and white) |
| 099 | Rear Left Digital Display Indicator fail (Multipurpose Display Group) • Replace rear left Digital Display Indicator (A1-F18AC-745-300, WP007 00). | Digital Display Indicator • ADV - BIT • LDDI BIT status message - DEGD 2 Rear Left Digital Display Indicator IP-1318() • Fault indicator latched (black and white) |
| 100 | Rear Right Digital Display Indicator fail (Multipurpose Display Group) • Replace rear right Digital Display Indicator (A1-F18AC-745-300, WP007 00). | Digital Display Indicator • ADV - BIT • RD DI BIT status message - DEGD 2 Rear Right Digital Display Indicator • Fault indicator latched (black and white) |
| 101 | Rear Center Digital Display Indicator fail (Multipurpose Display Group) • Replace rear center Digital Display Indicator (A1-F18AC-745-300, WP005 00). | Digital Display Indicator • ADV - BIT HSD BIT status message - DEGD 2 Rear Center Digital Display Indicator • Fault indicator latched (black and white) |
| 102 | Spare | |
| 103 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---------------------------------|
| 104 | <p>12 ▶ Control-Indicator C-10250/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Control-Indicator C-10250/ALR-67(V) (A1-F18AC-760-300, WP056 00). | |
| 105 | <p>12 ▶ Left Forward Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control system)</p> <ul style="list-style-type: none"> • Replace Left Forward Radar Receiver R-1248/ALR-67(V) (A1-F18AC-760-300, WP043 00). | |
| 106 | <p>12 ▶ Left Rear Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Left Rear Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP050 00). | |
| 107 | <p>12 ▶ Right Rear Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Right Rear Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP050 00). | |
| 108 | <p>12 ▶ Right Forward Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Right Forward Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP043 00). | |
| 109 | <p>12 ▶ Integrated Antenna AS-3190/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Integrated Antenna AS-3190/ALR-67(V) (A1-F18AC-730-300, WP048 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 110 | <p>12 ➤ Radar Receiver R-2055/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Radar Receiver R-2055/ALR-67(V) (A1-F18AC-760-300, WP054 00). | |
| 111 | <p>12 ➤ Countermeasures Computer CP-1293/ALR-67(V) fail (Countermeasures Warning and Control System)</p> <ul style="list-style-type: none"> • Replace Countermeasures Computer CP-1293/ALR-67(V) (A1-F18AC-760-300, WP055 00). | |
| 112 thru 113 | Spare | |
| 114 | <p>18 ➤ EGI WRA fail (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00)</p> | |
| 115 | <p>Inertial Navigation System fail (Inertial Navigation System)</p> <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-730-000, WP016 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT <p>INS BIT status message - DEGD or DEGD OH</p> <ul style="list-style-type: none"> • HUD display - flashing velocity vector Inertial Navigation Unit • FAIL fault indicator latched (black and white) |
| 116-124 | Spare | |
| 125 | <p>Air Data Computer CP-1334/A fail (Air Data Computer System)</p> <ul style="list-style-type: none"> • Replace Air Data Computer CP-1334/A (A1-F18AC-560-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • ADC BIT status message - DEGD <p>Air Data Computer CP-1334/A</p> <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 126 | <p>Right Airstream Direction Sensing Unit TRU-185/A fail (Air Data Computer System)</p> <ul style="list-style-type: none"> • Replace right Airstream Direction Sensing Unit TRU-185/A (A1-F18AC-560-300, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • ADC BIT status message - DEGD |
| 127 | <p>Left Airstream Direction Sensing Unit TRU-185/A fail (Air Data Computer System)</p> <ul style="list-style-type: none"> • Replace left Airstream Direction Sensing Unit TRU-185/A (A1-F18AC-560-300, WP005 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • ADC BIT status message - DEGD |
| 128 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 129 | Total temperature out of range (Air Data Computer System) • See table 1 (A1-F18AC-560-200, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD |
| 130 | Standby Pressure Altimeter AAU-39/A baro set potentiometer fail (Air Data Computer System) • See table 1 (A1-F18AC-560-200, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD • HUD display - Baro Set indication not correct |
| 131 | Magnetic Azimuth Detector DT-604/A fail (Inertial Navigation System) • Do Magnetic Azimuth Detector Initiated BIT Test (A1-F18AC-730-200, WP015 00) and, if MMP code 131 occurs again, do table 2 (A1-F18AC-730-200, WP015 00). • If MMP code 131 does not occur again, ignore code | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD Digital Display Indicator • MAG HDG not correct |
| 132 | Magnetic Azimuth Detector compensator unit fail (Inertial Navigation System) • Do Magnetic Azimuth Detector Initiated BIT Test (A1-F18AC-730-200, WP015 00) and, if MMP code 132 occurs again, do table 2 (A1-F18AC-730-200, WP015 00). • If MMP code 132 does not occur again, ignore code. | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD Digital Display Indicator • MAG HDG not correct |
| 133 (A) | AOA equality fail (Air Data Computer System) • See table 1 (A1-F18AC-560-200, WP005 00). | Digital Display Indicator • ADV - BIT • ADC BIT status message - DEGD • HUD display - AOA not correct |
| 134 thru 144 | Spare Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|--|--|
| 145 | Control-Converter C-10382/A fail (Mission Computer System) <ul style="list-style-type: none"> If code 145 occurred and Receiver Decoding Group AN/ARA-63 (ILS) is selected on the Electronic Equipment Control C-10380/ASQ (equipment control) and Radio Receiver R-1379()/ARA-63 is not installed, ignore code. If code 145 occurred and no related fault descriptor, no CNI caution, or CNI caution for less than 2 seconds, ignore code. If code 145 occurred and a related Control-Converter C-10382/A fault descriptor exists, or CNI caution for more than 2 seconds, do Control-Converter C-10382/A Test (A1-F18AC-741-200, WP005 00). If code 145 recurs, replace Control-Converter C-10382/A (A1-F18AC-741-300, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT CSC BIT status message - DEGD or DEGD OH TCN BIT status message - DEGD IBS BIT status message - DEGD ICS BIT status message - DEGD ILS BIT status message - DEGD AUG BIT status message - DEGD BCN BIT status message - DEGD IFF BIT status message - DEGD RALT BIT status message - DEGD Caution line - CNI Control-Converter C-10382/A <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 146 (1) | Intercommunication Amplifier-Control AM-6979/A or AM-7360/A fail (Intercommunication System) <ul style="list-style-type: none"> Ignore code if equipment not installed or if proper headset impedance is not applied (600Ω) Replace Intercommunication Amplifier-Control AM-6979/A or AM-7360/A (A1-F18AC-600-300, WP012 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ICS BIT status message - DEGD |
| 147 (1) | Receiver-Transmitter RT-1015()/APN-194(V) fail (Electronic Altimeter System) <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1015()/APN-194(V) (A1-F18AC-600-300, WP021 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RALT BIT status message - DEGD HUD display - Radar altitude display not correct |
| 148 | Receiver Decoding Group AN/ARA-63 fail (Instrument Landing System) <ul style="list-style-type: none"> Ignore code if equipment not installed. Do troubleshooting procedure (A1-F18AC-FIM-000, WP010 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ILS BIT status message - DEGD HUD display - ILS symbology not correct Pulse Decoder KY-651()/ARA-63 <ul style="list-style-type: none"> Fault indicator latched (white) Radio Receiver R-1379()/ARA-63 <ul style="list-style-type: none"> Fault indicator latched (white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 149 (I) | Interference Blanker MX-9965/A fail (Interference Blanker System) • If code exists and no related fault descriptor, ignore code. • If code exists and a related fault descriptor exists, do Interference Blanker Test (A1-F18AC-760-200, WP003 00). | Digital Display Indicator • ADV - BIT • IBS BIT status message - DEGD Interference Blanker MX-9965/A • Fault indicator latched (black and white) |
| 150 | IFF System fail (IFF System) • Ignore code if equipment not installed. • Observe ANT STATUS, KIT STATUS, and RT STATUS door 13L WRA fault indicators and do maintenance action for latched indicator (WP004 00). • If code remains, do IFF Built-In Test (A1-F18AC-600-200, WP032 00). | Digital Display Indicator • ADV - BIT • IFF BIT status message - DEGD • Caution line - IFF 4 |
| 151 (I) | Radar Receiver R-1623/APN fail (Radar Beacon System) • Ignore code if equipment not installed. • Replace Radar Receiver R-1623/APN (A1-F18AC-630-300, WP009 00). | Digital Display Indicator • ADV - BIT • AUG BIT status message - DEGD Radar Receiver R-1623/APN • Fault indicator latched (white) |
| 152 (I) | Receiver-Transmitter RT-1159/A fail (TACAN System) • Replace Receiver-Transmitter RT-1159/A (A1-F18AC-600-300, WP015 00). | Digital Display Indicator • ADV - BIT • TCN BIT status message - DEGD • HUD display - TACAN symbology not correct |
| 153 (1) | Receiver-Transmitter RT-1028/ APN-202 fail (Radar Beacon System) • Ignore code if equipment not installed. • Replace Radar Receiver-Transmitter RT-1028/APN-202 (A1-F18AC-630-300, WP008 00). | Digital Display Indicator • ADV - BIT • BCN BIT status message - DEGD Receiver-Transmitter RT-1028/APN-202 • Fault indicator latched (white) |
| 154 thru 158 | Spare Spare | |
| 159 | 18 Mission Data Loader (Flight Incident Recorder and Monitoring System) • Replace Mission Data Loader MU-1053A/ASQ-215 (A1-F18AC-580-300) | Digital Display Indicator • ADV - BIT • MU BIT status message - DEGD MUX FAIL • Caution Line - MU LOAD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 160 | <div>18</div> Mission Data Loader to Digital Data Computer No. 1 Data Transfer fail (Flight Incident Recorder and Monitoring System) <ul style="list-style-type: none"> • Replace Mission Data Loader MU-1053A/ASQ-215 (A1-F18AC-580-300) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • MDL BIT status message - DEGD • Caution Line - MDL LOAD |
| 161 thru 164 | Spare | |
| 165 | Signal Data Recorder RO-508/ASM-612 fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • Replace Signal Data Recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message - DEGD • Caution Line - CAUT DEGD Signal Data Recorder RO-508/ASM-612 <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 166 | Magnetic Tape Cartridge MX-9972/ASM-612 fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00). | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message - DEGD Magnetic Tape Cartridge MX-9972/ASM-612 <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 167 | Signal Data Converter CV-3493/ASM-612 fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • See table 1 (A1-F18AC-580-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message - DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 168 | Digital Display Indicator ID-2150/ASM-612 fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • Replace Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-580-300, WP005 00). | Digital Display Indicator ID-2150/ASM-612 <ul style="list-style-type: none"> • DDI FAIL indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 169 | Strain circuit failure (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With Code 926 but without codes 600, 601, 602, 603, 604, or 605; replace Signal Data Converter CV-3494/ASM-612 (A1-F18AC-580-300, WP003 00). With codes 600, 601, 602, 603, 604, and 605; replace Signal Data Converter CV-3494/ASM-612 (A1-F18AC-580-300, WP003 00). With code 600 and with or without code 926, see table 2 (A1-F18AC-580-200, WP005 00). With code 601 and with or without code 926, see table 4 (A1-F18AC-580-200, WP005 00). With code 602 and with or without code 926, see table 5 (A1-F18AC-580-200, WP005 00). With code 603 and with or without code 926, see table 6 (A1-F18AC-580-200, WP005 00). With code 604 and with or without code 926, see table 7 (A1-F18AC-580-200, WP005 00). With code 605 and with or without code 926, see table 8 (A1-F18AC-580-200, WP005 00). Code 169 only, see table 9 (A1-F18AC-580-200, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message - DEGD Caution line - CAUT DEGD Signal Data Converter (CV-3493/ASM-612) <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 170 thru 174 | Spare Spare | |
| 175 | 14 ➤ Receiver-Transmitter RT-1250()/ARC No. 1 fail (VHR/UHF Communication System) <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1250()/ARC No. 1 (76A-F001) (A1-F18AC-600-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - DEGD |
| 176 | 14 ➤ COM 1 Excessive VSWR Detected (VHF/UHF Communication System) <ul style="list-style-type: none"> If code 176 exists and no code 180, do table 1 (A1-F18AC-600-200, WP004 00) If code 176 and code 180 exists, do troubleshooting procedure (A1-F18AC-FIM-000, WP167 00). | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - DEGD D/L BIT status message - DEGD TILT - Link 4 display UTM FAIL - Link 4 display ACL N/A - Link 4 display CPL N/A - Link 4 display |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 177 | 14 ➤ Receiver-Transmitter RT-1250()/ARC No. 2 fail (VHF/UHF Communication System) • Replace Receiver-Transmitter RT-1250()/ARC No. 2 (76A-F002) (A1-F18AC-600-300, WP003 00). | Digital Display Indicator • ADV - BIT • COM 2 BIT status message - DEGD |
| 178 | 14 ➤ COM 2 Excessive VSWR Detected (VHF/UHF Communication System) • See table 1 (A1-F18AC-600-200, WP004 00). | Digital Display Indicator • ADV - BIT • COM 2 BIT status message - DEGD |
| 179 | Receiver-Transmitter-Processor RT-1379()/ASW fail (Data Link System) • Replace Receiver-Transmitter- Processor RT-1379()/ASW (A1-F18AC-630-300, WP016 00). | Digital Display Indicator • ADV - BIT • D/L BIT status message - DEGD • TILT - Link 4 display • UTM FAIL - Link 4 display • ACL N/A - Link 4 display • CPL N/A - Link 4 display |
| 180 | Data Link Excessive VSWR Detected (Data Link System) • If code 180 and no 176, do table 4 (A1-F18AC-630-200, WP015 00). • If code 180 and code 176 exists, do troubleshooting procedure (A1-F18AC-FIM-000, WP167 00). | Digital Display Indicator • ADV - BIT • D/L BIT status message - DEGD • COMM 1 BIT status message - DEGD • TILT - Link 4 display • UTM FAIL - Link 4 display • ACL N/A - Link 4 display • CPL N/A - Link 4 display |
| 181 thru 184 | Spare Spare | |
| 185 (P,I) | Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F001) fail (FCCA) (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH |
| 186 (P,I) | Roll-Pitch-Yaw Computer CP-1330/ASW-44 (84A-F002) fail (FCCB) (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSB BIT status message - DEGD or DEGD OH |
| 187 (P,I) | Linear Electrical Accelerometer CN-1512/ASW-44 (84A-F004) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 188 (P,I) | Linear Electrical Accelerometer CN-1512/ASW-44 (84A-F005) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------|--|--|
| 189 (P,I) | Air Data Sensor DT-600/ASW-44 (84A-D012) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 190 (P,I) | Rate Gyroscope CN-1511/ASW-44 (84A-F007) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 191 (P,I) | Rate Gyroscope CN-1511/ASW-44 (84A-F006) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 192 (I) | Control stick position sensors; lateral stick position sensor (84A-J122) or longitudinal feel trim actuator/stick position sensor (84D-C026) fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 193 (I) | Rudder Control C-10423/ASW-44 fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 194 (I) | FCS Control Panel C-10406/ASW-44 fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 195 (P,I) | Read BIT Logic Inspection (BLIN) Codes (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 196 thru 198 | Spare | |
| 199 (P,I) | Spare | |
| 200 (P) | Spare | |
| 201 (P,I) | 84P-H003A (J1) of FCS Control Panel C-10406/ASW-44 to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 202 (P,I) | 84P-H003B (J2) of FCS Control Panel C-10406/ASW-44 to 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|--|---------------------------------|
| 203 (P,I) | 84P-J037 of Control Stick Grip Adapter Assembly to 84P-F001B (J2) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F002B (J2) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB), or 84P-L096 of Rear Control Stick Grip Adapter Assembly to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 204 (P,I) | 84J-C026C (P3) of longitudinal feel trim actuator/stick position sensor (84B-C026) or 84J-J122A (P1) of lateral stick position sensor (84A-J122) to 84P-F001B (J2) or 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA), or 84J-C026B (P2) of longitudinal feel trim actuator/stick position sensor (84B-C026) or 84J-J122B (P2) of lateral stick position sensor (84A-J122) to 84P-F002B (J2) or 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 205 (P,I) | 84J-J025A (P1) of Rudder Control C-10423/ASW-44 to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 206 (P,I) | 84J-J025B (P2) of Rudder Control C-10423/ASW-44 to 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 207 (P,I) | 84J-L097A (P1) of rear Rudder Control C-10423/ASW-44 to 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|--|
| 208 (P,I) | 84J-L097B (P2) of rear Rudder Control C-10423/ASW-44 to 84P-F002H (J8) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | • FCSB BIT status message - DEGD or DEGD OH |
| 209 (P,I) | 84P-D012A (J1) of Air Data Sensor DT-600/ASW-44 to 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | • FCSB BIT status message - DEGD or DEGD OH |
| 210 (P,I) | 84P-D012B (J2) of Air Data Sensor DT-600/ASW-44 to 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 211 (P,I) | 84P-F004A (J1) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F001D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F004B (J2) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 212 (P,I) | 84P-F005A (J1) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F002D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F005B (J2) of Linear Electrical Accelerometer CN-1512/ASW-44 to 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|--|
| 213 (P,I) | 84P-F007A (J1) of Rate Gyroscope CN-1511/ASW-44 to 84P-F001D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F007B (J2) of Rate Gyroscope CN-1511/ASW-44 to 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | Digital Display Indicator • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 214 (P,I) | 84P-F006A (J1) of Rate Gyroscope CN-1511/ASW-44 to 84P-F002D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F006B (J2) of Rate Gyroscope CN-1511/ASW-44 to 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP- 1330/ASW-44 (FCCB) cable fail (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |
| 215 (P,I) | 84P-G035A of nosewheel steering power unit or 84P-G035B of nose- wheel steering power unit 84P-F001H (J8) of Roll-Pitch-Yaw Computer CP- 1330/ASW-44 (FCCA) and 84P- F002H (J8) of Roll-Pitch-Yaw Com- puter CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System) • See A1-F18AC-570-200, WP006 00. | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|--|
| 216 (P,I) | <p>84P-F001E (J5) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) to 84P-F002C (J3) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F001K (J10) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) to 84P-F002M (J12) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail</p> <p>or</p> <p>84P-F002E (J5) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) to 84P-F001C (J3) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F00K (J10) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) to 84P-F001M (J12) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail</p> <p>or</p> <p>84P-F001A (J1) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) to 84P-F001J (J9) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) or 84P-F001L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) cable fail</p> <p>or</p> <p>84P-F002A (J1) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F002J (J9) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F002D (J4) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) or 84P-F002L (J11) of Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) cable fail. (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • See A1-F18AC-570-200, WP006 00. | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • FCSA BIT status message - DEGD or DEGD OH • FCSB BIT status message - DEGD or DEGD OH |
| 217 (P,I) | Spare | |
| 218 (P) | <p>Run maintenance BIT, NWS test (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • See A1-F18AC-570-200, WP005 02. | |
| 219 (P,I) | <p>Run maintenance BIT, ATC test (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • See A1-F18AC-570-200, WP005 02. | |
| 220 (P,I) | Spare | |
| 221 (P,I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|-----------|---|---------------------------------|
| 222 (P,I) | Run maintenance BIT; left stabilator tests, TG2 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 223 (P,I) | Run maintenance BIT; right stabilator tests, TG3 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 224 (P,I) | Run maintenance BIT; left trailing edge flap tests, TG4 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 225 (P,I) | Run maintenance BIT; right trailing edge flap tests, TG5 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 226 (P,I) | Run maintenance BIT; leading edge flap tests, TG6 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 227 (P,I) | Run maintenance BIT; rudder tests, TG7 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 228 (P,I) | Run maintenance BIT; Air Data Sensor DT-600/ASW-44 and Airstream Direction Sensing Unit TRU-185/A tests, TG8 (Electronic Flight Control System) • See A1-F18AC-570-200, WP005 04. | |
| 229 (P,I) | Spare | |
| 230 (P,I) | Run maintenance BIT; aileron tests, TG10 (Electronic Flight Control System) • See A1-F18AC-570-200, WP007 00. | |
| 231 (P,I) | Run maintenance BIT; stick/NWS/ATC tests, TG11 (Electronic Flight Control System) • See A1-F18AC-570-200, WP005 05. | |
| 232 (P,I) | Spare | |
| 233 (I) | Spare | |
| 234 (I) | Spare | |
| 235 (I) | Spare | |
| 236 (P,I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 237 (P,I) | Spare | |
| 238 (P,I) | Spare | |
| 239 (P,I) | Spare | |
| 240 (M) | Spare | |
| 241 (M) | Spare | |
| 242 (I) | Spare | |
| 243 | Spare | |
| 244 | Spare | |
| 245 (I) | Spare | |
| 246 (I) | Spare | |
| 247 | Spare | |
| 248 | Spare | |
| 249 (I) | Spare | |
| 250 (I) | Spare | |
| 251 (I) | Spare | |
| 252 (I) | Spare | |
| 253 (I) | Spare | |
| 254 (I) | Spare | |
| 255 (I) | Spare | |
| 256 (I) | Spare | |
| 257 (I) | Spare | |
| 258 (I) | Spare | |
| 259 (I) | Spare | |
| 260 (I) | Spare | |
| 261 (M) | Spare | |
| 262 (M) | Spare | |
| 263 (M) | Spare | |
| 264 (M) | Spare | |
| 265 (I) | Spare | |
| 266 (I) | Spare | |
| 267 thru 274 | Spare | |
| 275 (I) | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 276 (I) | Spare | |
| 277 (I,M) | Spare | |
| 278 (I,M) | Spare | |
| 279 (I) | Spare | |
| 280 (I) | Spare | |
| 281 (P,I) | Spare | |
| 282 (P,I) | Spare | |
| 283 | Spare | |
| 284 | Spare | |
| 285 (P,I) | Spare | |
| 286 (P,I) | Spare | |
| 287 (P,I) | Spare | |
| 288 (P,I) | Spare | |
| 289 (P,I) | Spare | |
| 290 (P,I) | Spare | |
| 291 (P,I) | Spare | |
| 292 (P,I) | Spare | |
| 293 (P,I) | Spare | |
| 294 (P,I) | Spare | |
| 295 (P,I) | Spare | |
| 296 thru 299 | Spare | |
| 300 | Optics-Stabilizer SU-112/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 301 | Infrared Receiver R-2158/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 302 | Roll Drive Amplifier AM-7040/ AAS-38 (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 303 | Roll Drive Motor MX-10085/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 304 | Power Supply PP-7567/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 305 | Controller-Processor C-10661/ AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 306 | Servo Controller C-10662/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 307 | Pod Forward Section MX-10084/ AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 308 | Temperature Control C-10681/ AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 309 | Pod Aft Section MX-10086/AAS-38 fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 310 | Left heat exchanger blower fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 311 | Right heat exchanger blower fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |
| 312 | Pod forward section fan fail (Forward Looking Infrared System) • Do table 1 (A1-F18AC-744-200, WP005 00). | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD OH |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 313 thru 324 | Spare | |
| 325 | Laser Detector DT-612/ASQ-173 fail (Laser Detector Tracker System) • Replace Laser Detector DT-612/ASQ-173 (A1-F18AC-743-300, WP003 00). | Digital Display Indicator • ADV - BIT • LST BIT status message - DEGD or DEGD OH |
| 326 | Interconnecting Box J-3656/ASQ-173 fail (Laser Detector Tracker System) • Replace Interconnecting Box J-3656/ASQ-173 (A1-F18AC-743-300, WP004 00). | Digital Display Indicator • ADV - BIT • LST BIT status message - DEGD or DEGD OH • CAM BIT status message - DEGD or DEGD OH |
| 327 thru 340 | Spare | |
| 341 | Test value | |
| 342 thru 349 | Spare | |
| 350 | Strike Recording Still Picture Camera KB-35A fail (Strike Camera System) • Replace Strike Recording Still Pic- ture Camera KB-35A (A1-F18AC-770-300, WP010 00). | Digital Display Indicator • ADV - BIT • CAM BIT status message - DEGD or DEGD OH |
| 351 | Camera Drive-Mounting TG-244/ ASQ-173 fail (Strike Camera System) • Replace Camera Drive-Mounting TG-244/ASQ-173 (A1-F18AC-770-300, WP009 00). | Digital Display Indicator • ADV - BIT • CAM BIT status message - DEGD or DEGD OH |
| 352 thru 374 | Spare | |
| 375 | Command Launch Computer CP-1001/AWG fail (Stores Management System) • Replace Command Launch Com- puter CP-1001/AWG (A1-F18AC-740-300, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 376 | CLC/SMS Interface fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 377 | CLC/ALR-67 Interface fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 378 | Station 2 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 379 | Station 3 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 380 | Station 7 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • HARM BIT status message - DEGD |
| 381 | Station 8 HARM missile fail (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 382 | Station 2 HARM missile interface degrade (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 383 | Station 3 HARM missile interface degrade (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 384 | Station 7 HARM missile interface degrade (Stores Management System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 385 | Station 8 HARM missile interface degrade (Stores Management System) Digital Display Indicator • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 386 thru 390 | Spare Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 391 | Station 2 left 8 HARM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 392 | Station 2 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 393 | Station 3 left AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 394 | Station 3 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 395 | Spare | |
| 396 | Station 4 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 397 thru 399 | Spare | |
| 400 | Station 6 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 401 | Station 7 left AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 402 | Station 7 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 403 | Station 8 left AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |
| 404 | Station 8 right AMRAAM fail (Weapons System) • See table 1 (A1-F18AC-740-200, WP010 00). | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---------------------------------|
| 405 thru 408 | Spare | |
| 409 | Tunable notch filter (Airborne Self Protect Jammer) | |
| 410 | Countermeasures Receiver R-2236/ALQ-165(V) fail (Airborne Self Protect Jammer) | |
| 411 | Countermeasures Receiver R-2237/ALQ-165(V) fail (Airborne Self Protect Jammer) | |
| 412 | Countermeasures Computer CP-1530/ALQ-165(V) (Airborne Self Protect Jammer) | |
| 413 | Countermeasures Transmitter T-1463/ALQ-165(V) (Airborne Self Protect Jammer) | |
| 414 | Countermeasures Transmitter T-1464/ALQ-165(V) (Airborne Self Protect Jammer) | |
| 415 thru 418 | Spare | |
| 419 | MC1 Installation Error (Mission Computer System) <ul style="list-style-type: none"> • MC1 has been installed in another aircraft or aircraft bureau number has been altered. Life Usage Indices data have been compromised. • If code returns after reloading MC1, troubleshoot aircraft bureau number using table 1 (A1-F18AC-740-220, WP041 00). • Do table 1 (A1-F18AC-SCM-000, WP006 02) | |
| 420 | Spare | |
| 421 | No Spare lamps (Multipurpose Display Group) <ul style="list-style-type: none"> • Replace Lamp Assembly (A1-F18AC-745-300, WP023 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 422 thru 599 | Spare | |
| 600 | Wingfold Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 2 (A1-F18AC-580-200, WP005 00). • With codes 169, 601, 602, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). • Code 600 only, no maintenance action required. | Digital Display Indicator <ul style="list-style-type: none"> • ADV BIT • SDRS BIT status message DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |
| 601 | Forward 1 Fuselage Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 4 (A1-F18AC-580-200, WP005 00). • With codes 169, 600, 602, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). • Code 601 only, no maintenance action required. | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message DEGD • Caution line CAUT DEGD Signal • Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |
| 602 | Left Horizontal Stabilator Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 5 (A1-F18AC-580 200, WP005 00). • With codes 169, 600, 601, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). • Code 602 only, no maintenance action required. | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message - DEGD • Caution line CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |
| 603 | Right Horizontal Stabilator Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 6 (A1-F18AC-580-200, WP005 00). | Digital Display Indicator <ul style="list-style-type: none"> • ADV BIT • SDRS BIT status message DEGD |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| | <ul style="list-style-type: none"> With codes 169, 600, 601, 602, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 603 only, no maintenance action required. | <ul style="list-style-type: none"> Caution line, CAUT DEGD Signal Data CV-3493/ASM-612 Fault indicator latched (black and white) |
| 604 | Left Vertical Stabilizer Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 7 (A1-F18AC-580-200, WP005 00). With codes 169, 600, 601, 602, 603 and 605; replace Signal Data | Digital Display Indicator <ul style="list-style-type: none"> ADV BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 604 only, no maintenance action required. |
| 605 | Right vertical stabilizer strain gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 8 (A1-F18AC-580-200, WP005 00). With code 169, 600, 601, 602, 603 and 604; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 605 only, no maintenance action required. | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) |
| 606 thru 649 | Spare Spare | |
| 650 | Left engine fan speed signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 3 (A1-F18AC-270-200, WP006 01). | |
| 651 | Left engine compressor speed signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP006 01). | |
| 652 | Left engine EGT signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator <ul style="list-style-type: none"> Engine monitor display LEFT EGT - 1311°C Engine Monitor - Crew Station Indicator AEU-12/A L engine EGT indicator - not correct |
| 653 thru 657 | Spare Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 658 | Left fuel temperature signal fail (Fuel System) • When code 674, replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). • If no code 674, do table 2 (A1-F18AC-460-200, WP016 00). | Digital Display Indicator • Engine monitor display • • RIGHT FUEL TEMP - blank • • LEFT FUEL TEMP - blank |
| 659 | Left engine compressor discharge pressure signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • LEFT CDP - blank |
| 660 | Left engine turbine discharge pressure signal fail (Engine Instrument System) • Do table 4 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • LEFT TDP - blank |
| 661 | Left engine inlet temperature signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, (WP010 00). | Digital Display Indicator • Caution line L IN TEMP Voice alert message "Engine Left, Engine Left" |
| 662 | Left engine oil pressure signal fail (Engine Instrument System) • Do table 5 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator • Engine monitor display • • LEFT OIL PRESS - blank • Engine Monitor - Crew Station Indicator AEU-12/A • • L engine oil pressure indicator not correct |
| 663 thru 665 | Spare | |
| 666 | Right engine fan speed signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP006 01). | |
| 667 | Right engine compressor speed signal fail (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP006 01). | |
| 668 | Right engine EGT signal fail (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator • • Engine monitor display • • RIGHT EGT - 1311°C Engine Monitor - Crew Station Indicator AEU-12/A • R engine EGT indicator - not correct |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 669 thru 673 | Spare Spare | |
| 674 | Right fuel temperature signal fail (Fuel System) • When code 658, replace Signal Data Converter CV-3493/ ASM-612 (A1-F18AC-580-300, WP003 00). • If no code 658, do table 3 (A1-F18AC-460-200, WP016 00). | Digital Display Indicator • Engine monitor display • • RIGHT FUEL TEMP - blank • • FUEL TEMP - blank |
| 675 | Right engine compressor discharge pressure signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • RIGHT CDP blank |
| 676 | Right engine turbine discharge pres- sure signal fail (Engine Instrument System) • Do table 4 (A1-F18AC-270-200, WP012 00). | Digital Display Indicator • Engine monitor display • • RIGHT TDP - blank |
| 677 | Right engine inlet temperature signal fail (Engine Instrument System) • Do table 3 (A1-F18AC-270-200, WP010 00). | Digital Display Indicator • Caution line - R IN TEMP Voice Alert message - "Engine Right, Engine Right" |
| 678 | Right engine oil pressure signal fail (Engine Instrument System) • Do table 5 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator • Engine monitor display • • RIGHT OIL PRESS - blank • Engine Monitor - Crew station Indicator AEU-12/A • R engine oil pressure - not correct |
| 679 thru 681 | Spare Spare | |
| 682 | Test value | |
| 683 thru 701 | Spare Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|--|
| 702 | Left engine level 3 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 overtemp (see figure 4, A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 overtemp, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L EGT HIGH Voice Alert message - "Engine Left, Engine Left" |
| 703 | Left engine fan vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP009 01). | |
| 704 | Left engine compressor vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP003 01). | |
| 705 | Spare | |
| 706 | Left engine oil pressure high (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OIL PR Voice Alert message - "Engine Left, Engine Left" |
| 707 | Left engine oil pressure low (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OIL PR Voice alert message - "Engine Left, Engine Left" |
| 708 | Spare | |
| 709 | Left engine level 2 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> Borescope inspect hot section (A1-F18AC-270-300, WP060 00) and do table 1 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L EGT HIGH Voice Alert message - "Engine Left, Engine Left" |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|--|
| 710 | Left engine level 3 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 fan overspeed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 fan overspeed, do table 1 (A1-F18AC-270-200, WP007 00). • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital display indicator <ul style="list-style-type: none"> • Caution line - L OVRSPD Automatic left engine shutdown Voice Alert message - "Engine Left, Engine Left" |
| 711 | Left engine level 2 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-270-200, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - L OVRSPD Automatic left engine shutdown Voice Alert message - "Engine Left, Engine Left" |
| 712 | Left engine level 1 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-270-200, WP009 00). | |
| 713 | Left engine level 3 compressor overspeed (Engine Instrument System) <ul style="list-style-type: none"> • When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 compressor overspeed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 compressor overspeed, do table 1 (A1-F18AC-270-200, WP007 00) • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - L OVRSPD Automatic left engine shutdown Voice Alert message - "Engine Left, Engine Left" |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 714 | Left engine level 2 compressor over-speed (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP009 00). | Digital Display Indicator • Caution line - L OVRSPD Automatic left engine shutdown Voice alert message - "Engine Left, Engine Left" |
| 715 | Left engine level 1 compressor over-speed (Engine Instrument System) • Do table 2 (A1-F18AC-270-200, WP009 00). | |
| 716 | Left engine flameout (Engine Instrument System) • When engine relight was successful, do table 4 (A1-F18AC-270-200, WP006 00). • If engine did not relight, do table 3 (A1-F18AC-270-200, WP006 00). • If engine flameout did not occur or was not evident, do table 3 (A1-F18AC-270-200, WP012 00). • Determine if combustible fluid was ingested. If an engine anomaly heard or observed, do table 7 (A1-F18AC-270-200, WP006 01). • If engine flameout MMP code did not set when fire warning light pushbutton switch was used to shutdown engines, do throttle rigging (A1-F18AC-270-200, WP012 00, table 8). | Digital Display Indicator • Caution line - L FLAMEOUT Voice alert message - "Engine Left, Engine Left" |
| 717 thru 751 | Spare | |
| | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|--|
| 752 | Right engine level 3 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 overtemp (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 overtemp, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R EGT HIGH Voice Alert message - "Engine Right, Engine Right" |
| 753 | Right engine fan vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP009 01). | |
| 754 | Right engine compressor vibration high (Engine Instrument System) <ul style="list-style-type: none"> When code exists with no pilot confirmation, ignore code. If code exists and pilot felt vibrations, do table 1 (A1-F18AC-270-200, WP009 01). | |
| 755 | Spare | |
| 756 | Right engine oil pressure high (Engine Instrument System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OIL PR Voice alert message - "Engine Right, Engine Right" |
| 757 | Right engine oil pressure low (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP011 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OIL PR Voice Alert message - "Engine Right, Engine Right" |
| 758 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|--|
| 759 | Right engine level 2 EGT overtemp (Engine Instrument System) <ul style="list-style-type: none"> Borescope inspect hot section (A1-F18AC-270-300, WP060 00) and do table 1 (A1-F18AC-270-200, WP007 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R EGT HIGH Voice Alert message - "Engine Right, Engine Right" |
| 760 | Right engine level 3 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 fan overspeed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 fan overspeed, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OVRSPD Automatic right engine shutdown Voice Alert message - "Engine Right, Engine Right" |
| 761 | Right engine level 2 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP009 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R OVRSPD Automatic right engine shutdown Voice alert message - "Engine Right, Engine Right" |
| 762 | Right engine level 1 fan overspeed (Engine Instrument System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-270-200, WP009 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 763 | <p>Right engine level 3 compressor over-speed (Engine Instrument System)</p> <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 compressor over-speed (see figure 4, (A1-F18AC-270-200, WP003 00) replace engine (A1-F18AC-270-300, WP003 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 compressor over-speed, do table 1 (A1-F18AC-270-200, WP007 00). If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - R OVRSPD <p>Automatic right engine shutdown Voice alert message - "Engine Right, Engine Right"</p> |
| 764 | <p>Right engine level 2 compressor over-speed (Engine Instrument System)</p> <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP009 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - R OVRSPD <p>Automatic right engine shutdown Voice Alert message - "Engine Right, Engine Right"</p> |
| 765 | <p>Right engine level 1 compressor over-speed (Engine Instrument System)</p> <ul style="list-style-type: none"> Do table 2 (A1-F18AC-270-200, WP009 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 766 | <p>Right engine flameout (Engine Instrument System)</p> <ul style="list-style-type: none"> When engine relight was successful, do table 4 (A1-F18AC-270-200, WP006 00). If engine did not relight, do table 3 (A1-F18AC-270-200, WP006 00). If engine flameout did not occur or was not evident, do table 3 (A1-F18AC-270-200, WP012 00). Determine if combustible fluid was ingested. If an engine anomaly was heard or observed, do table 7 (A1-F18AC-270-200, WP006 01). If engine flameout MMP code did not set when fire warning light pushbutton switch was used to shutdown engines, do throttle rigging (A1-F18AC-270-200, WP012 00, table 8). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - R FLAMEOUT <p>Voice Alert message - "Engine Right, Engine Right"</p> |
| 767 thru 799 | <p>Spare</p> <p>Spare</p> | |
| 800 | <p>APU overspeed (Secondary Power System)</p> <ul style="list-style-type: none"> Do ECU/APU test (A1-F18AC-240-200, WP003 01). | APU Auto Shutdown |
| 801 | <p>APU overheat (Secondary Power Control System)</p> <ul style="list-style-type: none"> Do ECU/APU test (A1-F18AC-240-200, WP003 01). | APU Auto Shutdown |
| 802 | <p>APU no flame (Secondary Power Control System)</p> <ul style="list-style-type: none"> If code 802 and 800, 801 or 804, replace ECU (A1-F18AC-240-300, WP019 00). If code 805, replace APU fuel shut-off valve (A1-F18AC-240-300, WP009 00). If no code 805 end ECU/APU tester available, do ECU/APU test (A1-F18AC-240-200, WP003 01). If ECU/APU tester not available, do table 1 (A1-F18AC-240-200, WP005 04). | APU Light off and immediate shutdown |
| 803 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|---|
| 804 | <p>APU start period timer timed out (Secondary Power System)</p> <ul style="list-style-type: none"> • Be sure APU accumulator is properly charged (A1-F18AC-PCM-000). • Retry APU start (A1-F18AC-LMM-000). • If APU starts, ignore code. <p>If APU does not start do below:</p> <ul style="list-style-type: none"> • If ECU/APU tester available, do ECU/APU test (A1-F18AC-240-200, WP003 01). • If ECU/APU tester is not available, do table 4 (A1-F18AC-240-200, WP006 00). | APU Auto shutdown with no ready light |
| 805 | <p>APU fuel shutoff valve failed to open (Secondary Power System)</p> <ul style="list-style-type: none"> • Replace APU fuel shutoff valve (A1-F18AC-240-300, WP009 00). | |
| 806 thru 810 | <p>Spare</p> <p>Spare</p> | |
| 811 | <p>ACFT overstress (positive G exceeded)</p> <ul style="list-style-type: none"> • Do over G flight procedure (A1-F18AC-LMM-030). | HUD display - maximum normal acceleration indication |
| 812 | <p>Magnetic Tape Cartridge MX-9972/ASM-612 full (Maintenance Status Display and Recording System)</p> <ul style="list-style-type: none"> • Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00). | |
| 813 | <p>Left Anti-Ice fail (Basic Engine System)</p> <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-270-200, WP010 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - L HEAT |
| 814 | <p>Right Anti-Ice fail (Basic Engine System)</p> <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-270-200, WP010 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - R HEAT |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---|
| 815 | Inlet ice detector fail (Basic Engine System) <ul style="list-style-type: none"> If code 815 is set and external electrical power was applied to aircraft before code was set, do Inlet Ice Detector Test (A1-F18AC-270-200, WP020 00). If code 815 is set and external electrical power was not applied to aircraft before code was set, replace inlet ice detector (A1-F18AC-270-300, WP098 00). | |
| 816 | Left AMAD oil pressure low (Secondary Power System) <ul style="list-style-type: none"> Do table 3 (A1-F18AC-240-200, WP005 05). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L AMAD PR |
| 817 | Right AMAD oil pressure low (Secondary Power System) <ul style="list-style-type: none"> Do table 3 (A1-F18AC-240-200, WP005 05). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R AMAD PR |
| 818 | Left ATSCV open (Secondary Power System) <ul style="list-style-type: none"> Do table 5 (A1-F18AC-240-200, WP005 00). | |
| 819 | Right ATSCV open (Secondary Power System) <ul style="list-style-type: none"> Do table 6 (A1-F18AC-240-200, WP005 00). | |
| 820 | ACS temperature/flow controller (item 29) fail (Environmental Control System) <ul style="list-style-type: none"> If code 820 and any related indication, go to A1-F18AC-FRM-000, WP005, Table 8 and work the related Fault Descriptor. If code 820 and no related indication, do table 1 (A1-F18AC-410-200, WP092 00). | Ground power shutdown Digital Display Indicator <ul style="list-style-type: none"> Caution line - AV AIR HOT Cabin (cockpit) temperature not correct Vent suit temperature not correct |
| 821 | Cabin airflow/temperature sensor (item 32) fail (Cabin Cooling and Defog System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-410-200, WP093 00). | Cabin (cockpit) airflow not correct Cabin airflow temperature not correct |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---|
| 822 | Avionics airflow/temperature sensor (item 58) fail (Avionics Cooling System) • Do table 1 (A1-F18AC-410-200, WP094 00). | Digital Display Indicator • Caution line - AV AIR HOT Cabin airflow no/low flow |
| 823 | Suit/cabin temperature control (item 80) fail (Cabin Cooling and Defog System) • Do table 1 (A1-F18AC-410-200, WP095 00) | Cabin air temperature not correct Vent suit temperature not correct |
| 824 | System supply airflow incorrect (Air Cycle Air Conditioning System) • Do troubleshoot procedure (A1-F18AC-FIM-000, WP075 00). | |
| 825 | Cabin airflow incorrect (Cabin Cooling and Defog System) • Do the maintenance action for the related cabin (cockpit) indication: 1. Do troubleshooting procedure (A1-F18AC-FIM-000, WP077 00). 2. Do troubleshooting procedure (A1-F18AC-FIM-000, WP078 00). 3. Do troubleshooting procedure (A1-F18AC-FIM-000, WP078 00). | 1. Cabin air no/low flow 2. Cabin air flow high 3. Cyclic cabin flow |
| 826 | ECS air flow to radar liquid cooling air flow valve (item 12) fail (Radar Liquid Cooling System) • If codes 826 and 843, do troubleshooting procedure (A1-F18AC-FIM-000, WP023 00). • If code 826 and no 843, do table 1 (A1-F18AC-410-200, WP109 00). | |
| 827 | Cabin temperature incorrect (Cabin Cooling and Defog System) • Do the maintenance action for the related cabin (cockpit) indication: 1. Do troubleshooting procedure (A1-F18AC-FIM-000, WP080 00). 2. Do troubleshooting procedure (A1-F18AC-FIM-000, WP081 00). 3. Replace avionics flow valve (A1-F18AC-410-300, WP058 00). | 1. Cabin air temperature high 2. Cabin air too cold 3. Cabin temperature high Digital Display Indicator • Caution line - AV AIR HOT |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 828 | Radar liquid coolant temperature sensor (item 49) fail (Radar Liquid Cooling System) • Do table 1 (A1-F18AC-410-200, WP110 00). | |
| 829 | ECS delivery air temperature incorrect (Air Cycle Air Conditioning System) • Do table 1 (A1-F18AC-410-200, WP100 00). | |
| 830 | Vent suit temperature sensor (item 54) fail (Vent Suit System) • Do table 1 (A1-F18AC-410-200, WP096 00). | |
| 831 | Bleed air leak or bleed air leak detection fail (Bleed Air System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP082 00). | |
| 832 | Primary bleed air overpressure (Bleed Air System) • If codes 832 and 833, do troubleshooting procedure (A1-F18AC-FIM-000, WP084 00). • If code 832 and no 833, do table 1 (A1-F18AC-410-200, WP101 00). | |
| 833 | Secondary bleed air overpressure (Bleed Air System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP084 00). | |
| 834 | Left pitot heat circuit fail (Pitot Static System) • Do table 3, (A1-F18AC-510-200, WP003 00). | Digital Display Indicator • Caution line - L PITOT HT |
| 835 | Right pitot heat circuit fail (Pitot Static System) • Do table 3 (A1-F18AC-510-200, WP003 00). | Digital Display Indicator • Caution line - R PITOT HT |
| 836 | 14 Spare 15 Left Avionics cooling fan overheat (Cabin Cooling and Defog System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP163 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---------------------------------|
| 837 | <div>14 Spare</div> <div>15 Right avionics cooling fan overheat (Cabin Cooling and Defog System)</div> <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP164 00). | |
| 838 | <div>16 Spare</div> <div>17 Left rear avionics cooling fan overheat (Cabin Cooling and Defog System)</div> <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP165 00). | |
| 839 | <div>16 Spare</div> <div>17 Right rear avionics cooling fan overheat (Cabin Cooling and Defog System)</div> <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP166 00). | |
| 840 | Radar liquid cooling system filter overpressure (Radar Liquid Cooling System) <ul style="list-style-type: none"> If ΔP indicator not extended, do table 1 (A1-F18AC-410-200, WP091 00). If ΔP indicator extended, replace filter element (A1-F18AC-410-300, WP124 00). | |
| 841 | Radar liquid cooling system pressure low (Radar Liquid Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP021 00). | |
| 842 | Radar liquid cooling system heat exchanger or fan fail (Radar Liquid Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP022 00). | |
| 843 | Radar liquid cooling system door operation fail (Radar Liquid Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP023 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 844 | Radar liquid cooling system temperature high (Radar Liquid Cooling System) • Do troubleshooting procedure (A1-F18AC-FIM-000, WP073 00). | |
| 845 | 13 Cabin Exit Air Controller (Item 125) Fail (Avionics Cooling System) • Do troubleshooting procedures (A1-F18AC-410-200, WP086 00). | |
| 846 | 13 Cabin Exit Air Valve (Item 122) Fail (Avionics Cooling System) • Do troubleshooting procedure (A1-F18AC-410-200, WP087 00). | |
| 847 | 13 Cabin Exit Air Pressure Low (Avionics Cooling System) • Do troubleshooting procedure (A1-F18AC-410-200, WP088 00). | Digital Display Indicator • Caution Line - AV AIR DEGD |
| 848 thru 869 | Spare Spare | |
| 870 | Left generator converter unit fail (AC Power System) • Replace left generator converter unit (A1-F18AC-420-300, WP003 00). | Digital Display Indicator • Caution line - L GEN Caution light indicator panel • L GEN Caution light - on |
| 871 | Right generator converter unit fail (AC Power System) • Replace right generator converter unit (A1-F18AC-420-300, WP003 00). | Digital Display Indicator • Caution line - R GEN Caution light indicator panel • R GEN Caution light - on |
| 872 | Left power contactor fail (AC Power System) • If codes 870 and 872, replace left generator converter unit (A1-F18AC-420-300, WP003 00). • If code 872 and no 870, do table 1. (A1-F18AC-420-200, WP003 06). | Digital Display Indicator • Caution line - L GEN Caution light indicator panel • L GEN Caution light - on |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 873 | Right power contactor fail (AC Power System) <ul style="list-style-type: none"> If codes 873 and 871, replace right generator converter unit (A1-F18AC-420-300, WP003 00). If code 873 and no 871, do table 2. (A1-F18AC-420-200, WP003 06). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R GEN Caution light indicator panel <ul style="list-style-type: none"> R GEN Caution light - on |
| 874 thru 879 | Spare Spare | |
| 880 (A) | <div>1</div> Utility battery low (DC Power System) <ul style="list-style-type: none"> If no code 881 and U BATT caution light did not remain on, stop troubleshooting. If no code 881 and U BATT caution light remained on do troubleshooting procedure (A1-F18AC-FIM-000, WP004 00). If codes 870 and 871, replace utility battery and charger unit (A1-F18AC-420-300, WP018 00). <div>2</div> Spare | Digital Display Indicator <ul style="list-style-type: none"> Caution line - U BATT LO Caution light indicator panel <ul style="list-style-type: none"> U BATT Caution light - on |
| 881 | <div>1</div> Utility battery and charger unit fail (DC Power System) <ul style="list-style-type: none"> Replace utility battery and charger unit (A1-F18AC-420-300, WP019 00). <div>2</div> Spare | Digital Display Indicator <ul style="list-style-type: none"> Caution line - U BATT LO Caution light indicator panel <ul style="list-style-type: none"> U BATT Caution light - on |
| 882 (A) | <div>1</div> Emergency battery low (DC Power System) <ul style="list-style-type: none"> If no code 883 and E BATT caution light did not remain on, stop troubleshooting If no code 883 and E BATT caution light remained on, do troubleshooting procedure (A1-F18AC-FIM-000, WP005 00). If codes 870 and 871, replace emergency battery and charger unit (A1-F18AC-420-300, WP020 00). <div>2</div> Spare | Digital Display Indicator <ul style="list-style-type: none"> Caution line - E BATT LO Caution light indicator panel <ul style="list-style-type: none"> E BATT Caution light - on |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|--|--|
| 883 | <div>1 Emergency battery and charger unit fail (DC Power System)</div> <ul style="list-style-type: none"> Replace emergency battery and charger unit (A1-F18AC-420-300, WP020 00). <div>2 Spare</div> | Digital Display Indicator <ul style="list-style-type: none"> Caution line - E BATT LO Caution light indicator panel <ul style="list-style-type: none"> E BATT Caution light - on |
| 884 | Ground power circuit fail (Power Distribution System) | |
| <p>NOTE</p> <p>A false code 884 will exist if any GND PWR switch on GND PWR control panel assembly is set to ON with an engine-driven generator on line. This condition limited to aircraft 161353 through 162889.</p> | | |
| 885 | <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-FIM-000, WP006 00). <div>13 Battery Relay Control Unit Circuit Fail (DC Power System)</div> <ul style="list-style-type: none"> Do DC Power System Test (A1-F18AC-420-200, WP004 00). | |
| 886 thru 887 | Spare | |
| 888 | Test value | |
| 889 | Canopy switches disagree (Canopy System) <ul style="list-style-type: none"> On F/A-18A, do table 1 (A1-F18AC-120-200, WP011 00). On F/A-18B, do table 1 (A1-F18AC-120-200, WP012 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - CANOPY |
| 890 (G) | Right MLG WOW switch fail (Landing Gear System) <ul style="list-style-type: none"> If codes 890 and 195 with FCES LIN code 100, replace right MLG Weight On Wheels (WOW) switch (A1-F18AC-130-300, WP014 00). If code 890 only, do table 1 (A1-F18AC-130-200, WP007 16). | LDG GEAR control handle <ul style="list-style-type: none"> Could not be set to UP without pressing DOWN LOCK ORIDE |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|--|
| 891 (G) | Left MLG WOW switch fail (Landing Gear System) • If codes 891 and 195 with FCES BLIN code 077, replace left MLG Weight On Wheels (WOW) switch (A1-F18AC-130-300, WP014 00). • If code 891 only, do table 2 (A1-F18AC-130-200, WP007 16). | LDG GEAR control handle • Could not be set to UP without pressing DOWN LOCK ORIDE |
| 892 (G) | NLG WOW switch fail (Landing Gear System) • If codes 892 and 195 with FCES BLIN code 076, replace NLG Weight On Wheels (WOW) switch (A1-F18AC-130-300, WP015 00). • If code 892 only, do table 3 (A1-F18AC-130-200, WP007 16). | LDG GEAR control handle • Could not be set to UP without pressing DOWN LOCK ORIDE Nose landing gear • Does not retract |
| 893 (G) | Right MLG downlock switch fail (Landing Gear System) • If codes 893 and 195 with FCES BLIN code 075, replace right MLG downlock switch (A1-F18AC-160-300, WP012 00). • If code 893 only, do table 1 (A1-F18AC-130-200, WP007 19). | LDG GEAR control handle • Red light Flaps, landing gear and stores indicator panel • RIGHT downlock light does not agree with R MLG posi- tion |
| 894 (G) | Left MLG downlock switch fail (Landing Gear System) • If codes 894 and 195 with FCES BLIN code 074, replace left MLG downlock switch (A1-F18AC-130-300, WP012 00). • If code 804 only, do table 2 (A1-F18AC-130-200, WP007 19). | LDG GEAR control handle • Red light Flaps, landing gear and stores indicator panel • LEFT downlock light does not Agree with L MLG position |
| 895 (G) | NLG downlock switch fail (Landing Gear System) • If codes 895 and 195 with FCES BLIN code 073, replace NLG downlock switch (A1-F18AC-130-300, WP013 00). • If code 895 only, do table 3 (A1-F18AC-130-200, WP007 19). | LDG GEAR control handle • Red light Flaps, landing gear and stores indicator panel • NOSE downlock light does not agree with NLG position |
| 896 (G) | 8 Right MLG uplock switch fail (Landing Gear System) • If code 896 only, do table 1 (A1-F18AC-130-200, WP007 22). • If codes 896 and 910, replace right MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle • Red light • Audible thumping |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------|---|---|
| 897 (G) | <div>8 ▶ Left MLG uplock switch fail (Landing Gear System)</div> <ul style="list-style-type: none"> • If code 897 only, do table 2 (A1-F18AC-130-200, WP007 22). • If codes 897 and 911, replace left MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle <ul style="list-style-type: none"> • Red light • Audible thumping |
| 898 (G) | <div>8 ▶ NLG uplock switch fail (Landing Gear System)</div> <ul style="list-style-type: none"> • If code 898 only, do table 3 (A1-F18AC-180-200, WP007 22). • If codes 898 and 912, replace uplock switch (A1-F18AC-130-300, WP015 00). | LDG GEAR control handle <ul style="list-style-type: none"> • Red light • Audible thumping |
| 899 (G) | <div>8 ▶ Launch bar retract proximity switch fail (Landing Gear System)</div> <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-130-200, WP011 06). | LH Advisory and threat warning indicator panel <ul style="list-style-type: none"> • LAUNCH BAR warning light - on Nose landing gear <ul style="list-style-type: none"> • Does not retract |
| 900 (G) | Landing gear control unit emergency power fail (Landing Gear System) <ul style="list-style-type: none"> • Do table 3 (A1-F18AC-130-200, WP007 25). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 901 | Left MLG planing link proximity switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-130-200, WP007 25). | |
| 902 | Right MLG planing link proximity switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 2 (A1-F18AC-130-200, WP007 25). | |
| 903 | Hard Landing Data (Landing Gear System) <ul style="list-style-type: none"> Do Hard Landing Evaluation (A1-F18AC-LMM-030, WP004 00). | |
| 904 | Hard Landing Inspection (Landing Gear System) <ul style="list-style-type: none"> Do Hard Landing Evaluation (A1-F18AC-LMM-030, WP004 00). | |
| 905 | Skid control box assembly fail (Wheel Brake and Anti Skid System) <ul style="list-style-type: none"> If codes 905, 906, 907 and 908 are displayed, do substeps below: (For component locator, refer to (A1-F18AC-180-500, WP008 00.) <ol style="list-style-type: none"> Turn off electrical power (A1-F18AC-LMM-000). Set EMERG PARK BRK control to on. On LH vertical console control panel, make sure anti skid switch is off. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). On GND PWR control panel, make sure GND PWR 1 switch is set to AUTO. On GND PWR control panel, set and hold GND PWR 3 switch to B ON for 3 seconds. On LH vertical console control panel, set ANTI SKID switch to ON. | Digital Display Indicator <ul style="list-style-type: none"> Caution line - ANTI SKID |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|----------------|--|---|
| 905 (Cont.) | <p>8. If codes 905, 906, 907 and 908 do not reappear on Digital Display Indicator ID-2150/ASM-612, anti skid system is operating normally.</p> <p>9. If codes 905, 906, 907 and 908 reappear, do table 1 (A1-F18AC-130-200, WP008 09).</p> <ul style="list-style-type: none"> • If code 905 only or codes 905, 907 and 905, in any combination, are displayed, do table 1 (A1-F18AC-130-200, WP008 09). | |
| 906 | <p>Skid control system valve fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> • If code 906 and codes 905, 907, and 908 exist, see maintenance action for code 905. • If code 906 only, do table 1 (A1-F18AC-130-200, WP008 12). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • Caution line - ANTI SKID |
| 907 | <p>Left motion pickup transducer fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> • If code 907 and codes 905, 906, and 908 exist, see maintenance action for code 905. • If codes 907, 905 and 908, in any combination, are displayed, do table 1 (A1-F18AC-130-200, WP008 09). • If code 907 only, do table 2 (A1-F18AC-130-200, WP008 12). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • Caution line - ANTI SKID |
| 908 | <p>Right motion pickup transducer fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> • If code 908 and codes 905, 906, and 907 exist, see maintenance action for code 905. • If codes 908, 905 and 907, in any combination, are displayed, do table 1 (A1-F18AC-130-200, WP008 19). • If code 908 only, do table 3 (A1-F18AC-130-200, WP008 12). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • Caution line - ANTI SKID |
| 909 | Spare | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 910 (A) | Right MLG uplock did not occur (Landing Gear System) • If no code 896, do table 1, (A1-F18AC-130-200, WP007 31). • If code 896, replace right MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle • Red light Audible thumping |
| 911 (A) | Left MLG uplock did not occur (Landing Gear System) • If no code 897, do table 2, (A1-F18AC-130-200, WP007 31). • If code 897, replace left MLG uplock switch (A1-F18AC-130-300, WP016 00). | LDG GEAR control handle • Red light Audible thumping |
| 912 (A) | NLG uplock did not occur (Landing Gear System) • If no code 898, do table 3, (A1-F18AC-130-200, WP007 31). • If code 898, replace NLG uplock switch (A1-F18AC-130-300, WP017 00). | LDG GEAR control handle • Red light Audible thumping |
| 913 | Spare | |
| 914 | Spare | |
| 915 (G) | Landing gear control unit fail (Landing Gear System) • Do table 4 (A1-F18AC-130-200, WP007 25). | |
| 916 (A) | Arresting gear damper pressure low (Arresting Gear System) Service Arresting hook actuator (A1-F18AC-LMM-000). • If servicing procedure indicates servicing not required, do table 1 (A1-F18AC-130-200, WP010 04). | |
| 917 thru 924 | Spare | |
| 925 | Negative G Exceeded • Do negative G exceeded procedure (A1-F18AC-LMM-030). | |
| 926 | Strain recording terminated (Maintenance Status Display and Recording System) • With or without codes 169, 600, 601, 602, 603, 604 and 605 do table 1 (A1-F18AC-580-200, WP006 00). | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 927 | G - LIM Function Overridden • No maintenance action required. | Digital Display Indicator • Caution line - G - LIM OVRD |
| 928 thru 940 | Spare Spare | |
| 941 | Fuel dump open when commanded closed (Internal Fuel Transfer System) • Do table 1 (A1-F18AC-460-200, WP022 02). | Digital Display Indicator • Caution line - DUMP OPEN |
| 942 | Right fuel shutoff valve closed (Internal Fuel Transfer System) • If an abnormal or inadvertent engine shutdown occurred using FIRE button on RH advisory and threat warning indicator panel, do the steps below: 1. Reset FIRE button. 2. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). 3. Turn on electrical power (A1-F18AC-LMM-000). • If code does not reappear, stop troubleshooting. • If code 942 still displayed, do table 9 (A1-F18AC-460-200, WP012 07). | |
| 943 | Left fuel shutoff valve closed (Internal Fuel Transfer System) • If an abnormal or inadvertent engine shutdown occurred using FIRE button on LH advisory and threat warning indicator panel, do the steps below: 1. Reset FIRE button. 2. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). 3. Turn on electrical power (A1-F18AC-LMM-000). If code does not reappear, stop troubleshooting. • If code 943 still displayed, do table 10, (A1-F18AC-460-200, WP012 07). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|---|
| 944 | <p>10 Left or right fuel boost low with crossfeed valve closed</p> <p>10 Left or right shutoff valves closed with crossfeed valve open</p> <p>10 Left and right fuel boost high with crossfeed valve open (Engine Fuel Supply System)</p> <ul style="list-style-type: none"> If an abnormal or inadvertent engine(s) shutdown occurred using FIRE button(s) on LH/RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> Reset FIRE button Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). Turn on electrical power (A1-F18AC-LMM-000). <p>If code does not reappear, stop troubleshooting.</p> <ul style="list-style-type: none"> If code 944, do table 11 (A1-F18AC-460-200, WP012 07). 11 Code 944 not displayed. Crossfeed valve closed. (Engine Fuel Supply System) If an abnormal or inadvertent engine(s) shutdown occurred using FIRE button(s) on LH/RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> Reset FIRE button. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). Turn on electrical power (A1-F18AC-LMM -000). <p>If code reappears, stop troubleshooting</p> <ul style="list-style-type: none"> If code not displayed, do table 12 (A1-F18AC-460-200, WP012 07). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - L or R BOOST <p>Digital Display Indicator ID-2150/ASM-612</p> <ul style="list-style-type: none"> Code 942 Code 943 <p>Feed tank imbalance</p> |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|--|--|
| 945 | Tank 3 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> If any one, or combination of, 946, 947 or 948 codes are displayed with code 945, do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00). If single 945 code is displayed, do No. 3 Fuel Tank Cycle Test (A1-F18AC-460-200, WP012 05). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - FUEL LO |
| 946 | Tank 2 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> If any one, or combination of, 945, 947 or 948 codes are displayed with 946, do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00). If single 946 code is displayed, do No. 2 Fuel Tank Cycle Test (A1-F18AC-460-200, WP012 04). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - FUEL LO |
| 947 | Tank 4 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> If any one, or combination of, 945, 946 or 948 codes are displayed with code 947 do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00). If single 947 code is displayed, do tables in order listed below until malfunction has been isolated. <ol style="list-style-type: none"> Transfer Leak Test (A1-F18AC-460-200, WP012 02). No. 4 Fuel Tank Transfer Test (A1-F18AC-460-200, WP012 06). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - CG Caution line - FUEL LO |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|---|
| 948 | <p>Tank 1 failure (Internal Fuel Transfer System)</p> <ul style="list-style-type: none"> If any one, or combination of, 945, 946, or 947 codes are displayed with code 948 do Internal Fuel Transfer and Engine Fuel Supply System (A1-F18AC-460-200, WP012 00). If single 948 code is displayed, do tables in order listed below until malfunction has been isolated. <ol style="list-style-type: none"> Transfer Leak Test (A1-F18AC-460-200, WP012 02). No. 1 Fuel Tank Transfer Test (A1-F18AC-460-200, WP012 03). CG System Test (A1-F18AC-460-200, WP035 00). | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - FUEL LO |
| 949 | Spare | |
| 950 | Spare | |
| 951 | <p>Fuel external tank overpressure (External Fuel System)</p> <ul style="list-style-type: none"> Do table 1 (A1-F18AC-460-200, WP010 00). | |
| 952 thru 979 | Spare | |
| 980 (F) | <p>Left engine oil level low (Basic Engine System)</p> <ul style="list-style-type: none"> Use engine oil sight gage to determine engine oil level. If oil level low, service left engine oil system (A1-F18AC-PCM-000). If code exists after servicing, do table B (A1-F18AC-270-200, WP011 00). | |
| 981 (F) | <p>Right engine oil level low (Basic Engine System)</p> <ul style="list-style-type: none"> Use engine oil sight gage to determine engine oil level. If oil level low, service right engine oil system (A1-F18AC-PCM-000). If code exists after servicing, do table 6 (A1-F18AC-270-200, WP011 00). | |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|---------------------------------|
| 982 (F) | <div>3</div> Left AMAD oil level low (Secondary Power System) <ul style="list-style-type: none"> If left AMAD oil level indicator (door 53L) indicates oil level low, service AMAD oil system (A1-F18AC-PCM-000). If left AMAD oil level indicator (door 53L) does not indicate oil level low, do table 1 (A1-F18AC-240-200, WP005 05). | |
| 983 (F) | <div>3</div> Right AMAD oil level low (Secondary Power System) <ul style="list-style-type: none"> If right AMAD oil level Indicator (door 53R) indicates oil level low, service AMAD oil system (A1-F18AC-PCM-000). If right AMAD oil level indicator (door 53R) does not indicate oil level low, do table 2 (A1-F18AC-240-200, WP005 05). | |
| 984 | APU oil level low | |
| <div>CAUTION</div> <p>Do not operate APU when this code exists.</p> | | |
| (F) | (Secondary Power System) <ul style="list-style-type: none"> When APU oil level sight gage (door 52) indicates APU oil level low, service APU oil system (A1-F18AC-PCM-000). If APU oil level sight gage (door 52) does not indicate APU oil level low, do table 7 (A1-F18AC-240-200, WP005 00). | |
| 985 (F) | Radar liquid cooling system liquid level low | |
| <div>CAUTION</div> <p>Do not operate radar when this code exists. If code 985 and radar liquid coolant was ingested into engine intake, engine must be water washed (A1-F18AC-LMM-000) and borescope-hot section performed (A1-F18AC-270-300 WP060 00).</p> | | |

Table 1. Maintenance Codes (Continued)


| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|---|--|
| | (Radar Liquid Cooling System) <ul style="list-style-type: none"> When RDR LCS SVCS RESERVOIR LEVEL indicator (door B) is white (level low), service radar liquid cooling system (A1-F18AC-LMM-000). If RDR LCS SVCS RESERVOIR LEVEL indicator (door 6) is black (level full), do troubleshooting procedure (A1-F18AC-FIM-000, WP162 00). | |
| 986 | Spare | |
| 987 | Spare | |
| 988 (F) | Fire extinguisher low | |
| <div style="text-align: center;">  <p>Do not start APU or engines when this code exists.</p> </div> | | |
| | (Fire Extinguishing System) <ul style="list-style-type: none"> Replace fire extinguisher tank (A1-F18AC-240-300, WP032 00) and do test for fluids low maintenance codes (A1-F18AC-PCM-000). If code exists after replacing fire extinguisher tank, do table 6 (A1-F18AC-240-200, WP009 00). | |
| 989 | Spare | |
| thru | | |
| 994 | Spare | |
| 995 (F) | Fluids test complete | |
| 996 | LOX low (40%) (Oxygen System) <ul style="list-style-type: none"> If code 996 exists and Liquid Oxygen Quantity Indicator GMU-75/A indicates liquid oxygen is less than 4 liters, service liquid oxygen converter (A1-F18AC-LMM-000). If code 996 exists and Liquid Oxygen Quantity Indicator GMU-75/A indicates liquid oxygen is greater than 4 liters, troubleshoot using Oxygen System Schematic, (A1-F18AC-410-500, WP016 00). | Digital Display Indicator <ul style="list-style-type: none"> Caution line - OXY LO LH advisory and threat warning indicator panel <ul style="list-style-type: none"> MASTER CAUTION light - on |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---|
| 997 | Hydraulic system 1 oil level low (Hydraulic System) • If code 997 exists and hydraulic reservoir gage indicates oil level is low, service hydraulic system 1 reservoir (A1-F18AC-PCM-000). • If code 997 exists and hydraulic reservoir gage indicates FULL, troubleshoot using Hydraulic System Schematic, (A1-F18AC-450-600, WP003 00). | Digital Display Indicator • Caution line - HYD 1A • Caution line - HYD 1B |
| 998 | Hydraulic system 2 oil level low (Hydraulic System) • If code 998 exists and hydraulic reservoir gage indicates oil level is low, service hydraulic system 2 reservoir (A1-F18AC-PCM-000). • If code 998 exists and hydraulic reservoir gage indicates FULL, troubleshoot using Hydraulic System Schematic, (A1-F18AC-450-500, WP003 00). | Digital Display Indicator • Caution line - HYD 2A • Caution line - HYD 2B |
| 999 | Hydraulic system fluid level NABIT not done (Hydraulic System) • Ignore when code 997 or 998 exists. • Determine if hydraulic system requires service (A1-F18AC-PCM-000). | |

LEGEND

- 1 161353 THRU 161528.
- 2 161702 AND UP.
- 3 Indications valid only if test is done with AMAD not rotating and within 15 minutes after AMAD shutdown. Ignore codes 982 and 983 at all other times.
- 4 When a combination of two or more avionic mux bus 1 fail maintenance codes exists (001, 002, 004, 006, 014, 015, 017, 018, 029, 030, and ON 161353 THRU 161528, 019), malfunction may be avionic mux wiring. Refer to table 2 for the prescribed maintenance action. If the combination of maintenance codes does not appear in table 2, do the maintenance action prescribed in table 1 for each maintenance code. Before troubleshooting MC1 and/or MC2 cautions, make sure Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) is not removed from the aircraft or connectors disconnected.

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------|---|---------------------------------|
| 5 | When a combination of two or more avionic mux bus 2 fail maintenance codes exists (003, 005, 007, 010, 012, 016, 029, ON 161702 AND UP 019 and 020), malfunction may be avionic mux wiring. Refer to table 3 for the prescribed maintenance action. If the combination of maintenance codes does not appear in table 3, do the maintenance action prescribed in table 1 for each maintenance code. Before troubleshooting MC1 and/or MC2 cautions, make sure Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) is not removed from the aircraft or connectors disconnected. | |
| 6 | Deleted. | |
| 7 | Deleted. | |
| 8 | If codes 896, 897, 898, and 899 occur at same time, RESET Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000). Turn off electrical power, turn on electrical power (A1-F18AC-LMM-000) and on GND PWR control panel assembly, set and hold 1 switch to A ON for 3 seconds. If codes do not occur again, ignore codes. If codes occur again or codes occur separately, do recommended maintenance action. | |
| 9 | Do maintenance BIT (A1-F18AC-742-200, WP007 00). | |
| 10 | 163119 AND UP; ALSO 161353 THRU 161924 BEFORE F/A-18 IAFC-056 OR 161353 THRU 163118 AFTER F/A-18 AFC 070. | |
| 11 | 161353 THRU 161924 AFTER F/A-18 IAFC-056, OR 161353 THRU 163118 BEFORE F/A-18 AFC 070. | |
| 12 | 161702 AND UP. If more than one ALR-67 code exists, do built-in test (A1-F18AC-760-200, WP031 00). | |
| 13 | 163092 AND UP. | |
| 14 | 161353 THRU 161987. | |
| 15 | 162394 AND UP. | |
| 16 | 161354 THRU 161947. | |
| 17 | 162402 AND UP. | |
| 18 | AFTER F/A-18 AFC 225 AND F/A-18 AFC 231. | |

Table 2. Avionic Mux Bus 1 Fail Troubleshooting

| Maintenance Code 2 | | | | | | | | | | | Maintenance Action |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 001 | 002 | 004 | 006 | 014 | 015 | 017 | 018 | 019 | 029 | 030 | |
| X | X | X | X | X | X | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP115 00). |
| X | | X | X | X | X | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP116 00). |
| | X | | X | X | X | | | X | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: WTF001 pin 263 to WTF005 pin 36 WTF001 pin 265 to WTF005 pin 37 |

Table 2. Avionic Mux Bus 1 Fail Troubleshooting 1 (Continued)

| Maintenance Code <input type="text" value="2"/> | | | | | | | | | | | Maintenance Action |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 001 | 002 | 004 | 006 | 014 | 015 | 017 | 018 | 019 | 029 | 030 | |
| | X | | X | | X | | | X | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: WTF004 pin 4 to WTF005 pin 36 WTF004 pin 6 to WTF005 pin 37 |
| | | | X | | X | | | X | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: ON 161353 THRU 161528 WTF001 pin 260 to WTF006 pin 144 WTF001 pin 262 to WTF006 pin 145. ON 161702 AND UP WTF001 pin 260 to 84P-F002F pin S002. WTF001 pin 262 to 84P-F002F pin S003 |
| | X | | | | X | | | X | X | | Repair defective wiring (A1-F18AC-WRM-000) from: WTF004 pin 4 to WTF006 pin 147 WTF004 pin 6 to WTF006 pin 148. |
| | | | X | | X | | | | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: WTF006 pin 144 to 84P-F002F pin S002 WTF006 pin 145 to 84P-F002F pin S003. |
| | | | X | | | | | | X | X | Repair defective wiring (A1-F18AC-WRM-000) from: 84P-F002F S002 to WTF002 pin 109 84P-F002F S003 to WTF002 pin 110 |
| | X | | | | | | | | X | | Do table 1 (A1-F18AC-FIM-000, WP117 00). |

LEGEND

1. X in Maintenance Code column indicates code was set.

On 161353 THRU 161528, code 019 exists on channel 1.

Table 3. Avionic Mux Bus 2 Fail Troubleshooting

| <input type="text" value="4"/> <input type="text" value="3"/> Maintenance Code | | | | | | | | | | Maintenance Action |
|--|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 020 | 019 | 003 | 005 | 007 | 010 | 012 | 016 | 029 | | |
| X | X | X | X | X | X | X | X | X | | On 161925 AND UP: a. If code 020 does not exist, do table 1 (A1-F18AC-FIM-000, WP119 00). b. If code 020 also exists, use Avionic Mux Bus 2X Schematic (A1-F18AC-FIM-000, WP114 00) to isolate defective wiring (A1-F18A()-WDM-000) from: |

Table 3. Avionic Mux Bus 2 Fail Troubleshooting (Continued)

| <div> <div>4</div> <div>3</div> </div> Maintenance Code | | | | | | | | | Maintenance Action |
|---|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 020 | 019 | 003 | 005 | 007 | 010 | 012 | 016 | 029 | |
| | | | | | | | | | 83P-E001D pin 23 to 62P-E006B pin 30 83P-E001D pin 24 to 62P-E006B pin 1 On 161353 THRU 161924, do table 1 (A1-F18AC-FIM-000, WP119 00). |
| | X | X | X | X | X | X | X | X | Malfunction is isolated to one of the below: a. 60J-A001B disconnected. b. Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) not installed. |
| | X | X | X | X | | X | X | X | Malfunction is isolated to one of the below: a. 60J-A001B disconnected. b. Electrical Equipment Rack MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) not installed. |
| | | X | X | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP127 00). |
| | X | X | | X | X | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP118 00). |
| | | X | X | X | X | X | | X | Using Avionic Mux Bus 2Y Schematic (A1-F18AC- FIM-000, WP114 00), isolate defective wiring (A1-F18A()-WDM-000) from: 52J-J029 pin S009 to 80P-J002A pin S004 52J-J029 pin S010 to 80P-J002A pin S003 |
| | X | X | | X | | X | X | X | Do table 1 (A1-F18AC-FIM-000, WP120 00). |
| | | | X | X | X | X | | X | Do table 1 (A1-F18AC-FIM-000, WP122 00). |
| | | | X | X | | X | | X | Do table 1 (A1-F18AC-FIM-000, WP121 00). |
| | X | | | X | | X | X | X | Using Avionic Mux Bus 2X Schematic (A1-F18AC-FIM-000, WP114 00), isolate defective wiring (A1-F18A()-WDM-000) from: |

ORGANIZATIONAL MAINTENANCE**F/A98A AFTER AFC 253 ER AFC 292****FAULT REPORTING MANUAL****NOSE WHEELWELL DDI MAINTENANCE CODE LISTING****EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292;
AND AFTER F/A-18 AFC 231 PART 2 OR PART 3****Reference Material**

None

Alphabetical Index

| Subject | Page No. |
|---|-----------------|
| Avionic Mux Bus 1 Fail Troubleshooting, Table 2 | 81 |
| Avionic Mux Bus 2 Fail Troubleshooting, Table 3 | 82 |
| Introduction | 1 |
| Maintenance Codes, Table 1 | 4 |
| Multiple Avionic Mux Bus Fail Troubleshooting | 2 |
| Avionic Mux Bus 1 Fails | 2 |
| Avionic Mux Bus 2 Fails | 3 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|--|-------------|---|-------------------------|----------------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |
| F/A-18 AFC 231 Part 2 or Part 3 | - | Embedded Global Positioning System (GPS)/Inertial Navigation System (INS) (EGI), Incorporation of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |

1. INTRODUCTION.

2. All built-in test (BIT) maintenance codes are identified in this work package. A description, the related system, and the recommended maintenance action are provided for each maintenance code.

3. When flag note and/or hexagonal box instructions are associated with a maintenance code, the instructions are to be done before the recommended maintenance action.

4. Letters in the code column identify unique requirements for setting some codes:

A1-F18AC-FRM-000

Change 2

003 03

Page 2

a. M - Maintenance BIT

b. I - Initiated BIT

c. P - Periodic BIT

d. A - Weight Off Wheels

e. G - Weight On Wheels

f. F - Fluids Test

5. Some maintenance codes have entries in the Possible Related Indications column. These can be fault indications provided by BIT or operator observations, depending on the type of failure. The possible related indications are considered corrected when the maintenance codes are cleared. Clearing of maintenance codes is done after corrective action or when corrective action is to ignore the maintenance code.

6. All caution line indications occur with LH advisory and threat warning indicator panel MASTER CAUTION light on and master caution audio. See descriptions of cautions (WP004 00).

7. MULTIPLE AVIONIC MUX BUS FAIL TROUBLESHOOTING.

NOTE

Before troubleshooting any Digital Data Computer 1 and/or 2 cautions, make sure Electrical Equipment Rack AFTER F/A-18 AFC 253; MT-4955/APG-65 (A1-F18AC-742-300, WP014 00) AFTER F/A-18 AFC 292 MT-6809/APG-73 (A1-F18AH-742-300, WP014 00) is not disconnected or removed from the aircraft.

Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue, but mux communication has lost

one-half of its redundancy. Loss of the remaining mux bus may result in MUX FAIL and the operational failure or degradation of the system.

ALL MMP CODES ARE READ ON COCKPIT DDI.

8. When multiple avionic mux bus fail maintenance codes (001 thru 030, and 062) exist, malfunction can be caused by defective avionic mux bus wiring. Using combinations of maintenance codes, tables 2 and 3 (this WP) provide maintenance actions for isolation of defective avionic mux bus 1x/1y or 2x/2y wiring. Multiple failures on mux bus 4x/4y, 5x/5y, or 6x/6y should be fault isolated by analysis of the failure pattern/order using mux bus schematics of the A1-F18A()-WDM-000 or A1-F18AC-741-500.

9. **AVIONIC MUX BUS 1 FAILS.** Table 2 (this WP) lists the avionic mux bus 1 fail maintenance codes for the components listed below:

a. Air Data Computer CP-1334A/A (001)

b. Signal Data Recorder Terminal Fail RO-508/ASM-612 (030)

c. Control-Converter C-10382/A (004)

d. Armament Computer CP-1342/AVQ-9(V) (006)

e. Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) (014)

f. Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) (015)

g. Command Launch Computer CP-1001A/AWG (017)

h. VHF/UHF Receiver-Transmitter No. 1 (018) RT-1824/ARC 210

NOTE

Avionics mux terminals must be installed and turned on to be tested for mux bus failure. When using tables (this WP) to analyze mux failures, terminals not installed or not turned on should be considered in determining multiple failure pattern.

10. When more than one avionic mux bus 1 fail maintenance code exists, do the maintenance action

in table 2 (this WP) for that combination of codes. When an avionic mux bus fail maintenance code combination exists that is not listed in table 2 (this WP), do the maintenance action prescribed in table 1 (this WP) for each maintenance code.

11. **AVIONIC MUX BUS 2 FAILS.** Table 3 (this WP) lists the avionic mux bus 2 fail maintenance codes for the components listed below:

- a. Embedded GPS/INS AN/ASN-172 (025/026)
- b. Controller Processor C-10661/AAS-38 (007)
- c. Radar system terminal fail After F/A-18
AFC 253 Computer Power Supply After F/A-18
AFC 292 Radar Data Processor
- d. Mounting-Adapter MT-6682-ASQ-173 (012)
when installed
- e. Receiver-Transmitter-Processor RT-1379
()/ASW (016)

f. VHF/UHF Receiver-Transmitter No. 2 (019)
RT-1556/ARC-210 or RT-1824/ARC-210

g. Countermeasures Computer (020)
CP-1243/ACR-67

h. Digital Data Computer No. 2 (029)

NOTE

Avionics mux terminals must be installed and turned on to be tested for mux bus failure. When using tables (this WP) to analyze mux failures, terminals not installed or not turned on should be considered in determining multiple failure pattern.

12. When more than one avionic mux bus 2 fail maintenance code exists, do the maintenance action in table 3 (this WP) for that combination of codes. When an avionic mux bus fail maintenance code combination exists that is not listed in table 3 (this WP), do the maintenance action prescribed in table 1 (this WP) for each maintenance code.

Table 1. Maintenance Codes

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------------|---|--|
| 000 | Test value. | |
| | <p style="text-align: center;">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | |
| 001 | <p>2 Air Data Computer Avionic Mux Bus 1x/1y fail (Air Data Computer System)</p> <ul style="list-style-type: none"> • Replace Air Data Computer CP-1334A/A, (A1-F18AC-560-300, WP003 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • ADC BIT status message - MUX FAIL |
| | <p style="text-align: center;">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | |
| 002 | <p>9 Left Digital Display Indicator Avionic Mux Bus 6x/6y fail (Multipurpose Display Group)</p> <ul style="list-style-type: none"> • Replace Left Digital Display Indicator (A1-F18AC-745-300, WP004 00) • If left Digital Display Indicator previously replaced, do table 3, (A1-F18AC-745-200, WP012 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • LDDI BIT status message - MUX FAIL <p>Left Digital Displays Indicator</p> <ul style="list-style-type: none"> • STANDBY flashing |
| | <p style="text-align: center;">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|--|---|
| 003 | <div>5</div> Right Digital Display Indicator Avionics Mux Bus 5x/5y fail (Multipurpose Display Group) <ul style="list-style-type: none"> • Replace Right Digital Display Indicator IP-1317(), (A1-F18AC-745-300, WP004 00) • If right Digital Display Indicator previously replaced, do table 3, (A1-F18AC-745-200, WP012 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDDI BIT status message - MUX FAIL Right Digital Display Indicator <ul style="list-style-type: none"> • STANDBY flashing |
| <div>NOTE</div> <div> Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. </div> | | |
| 004 | <div>2</div> Control-Converter Avionic Mux Bus 1x/1y fail (Digital Data Computer System) <ul style="list-style-type: none"> • Replace Control-Converter C-10382/A, (A1-F18AC-741-300, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • CSC BIT status message - MUX FAIL • TCN BIT status message - DEGD • IBS BIT status message - DEGD • ICS BIT status message - DEGD • ILS BIT status message - DEGD • AUG BIT status message - DEGD • BCN BIT status message - DEGD • IFF BIT status message - DEGD • RALT BIT status message - DEGD • Caution line - CNI |
| <div>NOTE</div> <div> Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. </div> | | |
| 005 | <div>3</div> Inertial Navigation Unit Avionic Mux Bus 2x/2y fail (Inertial Navigation System) <ul style="list-style-type: none"> • Do table 1, (A1-F18AC-730-200, WP016 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • INS BIT status message - MUX FAIL • Caution line - INS ATT • HUD display - flashing velocity vector |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|--|--|
| <p align="center">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |
| | | |
| 006 | <p>2 Armament Computer Avionic Mux Bus 1x/1y fail (Stores Management System)</p> <ul style="list-style-type: none"> • Replace Armament Computer (A1-F18AC-740-300, WP006 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • SMS BIT status message - MUX FAIL |
| <p align="center">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |
| | | |
| 007 | <p>3 Detecting Set Avionic Mux Bus 2x/2y fail (Forward Looking Infrared System)</p> <ul style="list-style-type: none"> • Replace Controller-Processor C-10661/AAS-38, (A1-F18AC-744-300, WP009 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • FLIR BIT status message - MUX FAIL |
| <p align="center">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |
| | | |
| 008 | <p>4 Mission data loader Avionic Mux Bus 4x/4y fail</p> <ul style="list-style-type: none"> • Replace Mission Data Loader/ASQ-215 (A1-F18AC-580-300, WP007 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • MU BIT status message - MUX FAIL |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|--|--|
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 009 | N/A | |
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 010 | <div>3</div> <div>Radars Avionic Mux Bus 2x/2y fail (Radars System)</div> <div>• When multiple radar maintenance codes are displayed, do table 1,</div> <div>7</div> <div>(A1-F18AC-742-200, WP005 00)</div> <div>8</div> <div>(A1-F18AH-742-200, WP005 00)</div> <div>• If NOT RDY remains displayed,</div> <div>7</div> <div>Replace Computer-Power Supply CP-1325/APG-65 (A1-F18AC-742-300, WP005 00)</div> <div>8</div> <div>Replace Radar Data Processor CP-20621/APG-73 (A1-F18AH-742-300, WP004 00)</div> | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - MUX FAIL |
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|---|
| 011 | <div>8</div> Combined Interrogator-Transponder Avionic Mux Bus 5x/5y fail (IFF System) <ul style="list-style-type: none"> • Replace Radio Receiver-Transmitter (A1-F18AC-600-300, WP028 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • IFF BIT status message - MUX FAIL |
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 012 | <div>3</div> Laser Detector-Tracker-Strike Camera Set Avionic Mux Bus 2x/2y fail (Laser Detector Tracker System) <ul style="list-style-type: none"> • Replace Interconnecting Box J-3656/ASQ-173, (A1-F18AC-743-300, WP004 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • LDT BIT status message - MUX FAIL • CAM BIT status message - MUX FAIL |
| 013 | N/A | |
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 014 | <div>2</div> Roll-Pitch-Yaw Computer (FCCA) Avionic Mux Bus 1x/1y fail (Electronic Flight Control System) <ul style="list-style-type: none"> • Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (A1-F18AC-570-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • FCSA BIT status message - MUX FAIL |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|--|
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 015 | <div>2</div> Roll-Pitch-Yaw Computer (FCCB) Avionic Mux Bus 1x/1y fail (Electronic Flight Control System) <ul style="list-style-type: none"> • Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (A1-F18AC-570-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • FCSB BIT status message - MUX FAIL |
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 016 | <div>3</div> Receiver-Transmitter-Processor Avionic Mux Bus 2x/2y fail (Data Link System) <ul style="list-style-type: none"> • Replace Receiver-Transmitter Processor RT-1379()/ASW (A1-F18AC-630-300, WP016 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • D/L BIT status message - MUX FAIL |
| NOTE | | |
| Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system. | | |
| 017 | <div>2</div> Command Launch Computer Avionic Mux Bus 1x/1y fail (Stores Management System) <ul style="list-style-type: none"> • Replace Command Launch Computer CP-1001()/AWG, (A1-F18AC-740-300, WP011 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • HARM BIT status message - MUX FAIL • CLC BIT status message - MUX FAIL |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|---|---|
| <p align="center">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |
| 018 | <p>2 VHF/UHF Receiver-Transmitter No. 1 Avionic Mux Bus fail RT-1824/ARC-210 (Communication System)</p> <ul style="list-style-type: none"> Replace VHF/UHF Receiver-Transmitter No. 1, (A1-F18AC-600-300, WP003 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 1 BIT status message - MUX FAIL |
| <p align="center">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |
| 019 | <p>3 VHF/UHF Receiver-Transmitter No. 2 Avionic Mux Bus fail RT-1556/ ARC-210 or RT-1824/ARC-210 (Communication System)</p> <ul style="list-style-type: none"> Replace VHF/UHF Receiver-Transmitter No. 2, (A1-F18AC-600-300, WP003 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> ADV - BIT COM 2 BIT status message - MUX FAIL |
| <p align="center">NOTE</p> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|---|--|
| 020 | <div>3</div> Countermeasures Computer Avionic Mux Bus 2x/2y fail (Countermeasures Warning and Control System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-760-200, WP055 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RWR BIT status message - MUX FAIL |
| 021 thru 023 | N/A | |
| 024 | Aircraft Instrumentation Subsystem Internal (AN/ASQ-T16) Avionic Mux Bus fail (Aircraft Instrumentation Subsystem Internal) (AISI). | |
| 025 | <div>12</div> EGI - GPS Terminal fail (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 026 | <div>12</div> EGI - INS Terminal fail (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 027 thru 028 | Spare | |
| <div>NOTE</div> <p>Avionic Mux Bus fail code set with no built-in test MUX FAIL displayed indicates that the mission computer is able to communicate with the system terminal on only one avionic mux bus (X or Y). Normal system operation may continue but mux communication has lost one-half of its redundancy and loss of the remaining mux bus will result in MUX FAIL and the operational failure or degradation of the system.</p> | | |
| | | |
| 029 | <div>2</div> <div>3</div> Digital Data Computer No. 2 Avionic Mux Bus fail (Digital Data Computer System) <ul style="list-style-type: none"> Replace Digital Data Computer No. 2, (A1-F18AC-741-300, WP004 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - MC2 |
| 02A | Reserved | |
| 02C | Reserved | |
| 02F | Reserved | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|---|---|--|
| 030 | <div>2</div> <div>Signal Data Recorder RO-508/ASM-612 Avionic Mux Bus fail (Maintenance Status and Display and Recording System)</div> <ul style="list-style-type: none"> Replace Signal Data recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00) | <div>Digital Data Indicator</div> <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message - NOGO Caution line - CAUT DEGD |
| 031 | Reserved | |
| 032 | <div>2</div> <div>3</div> <div>Digital Data Computer No. 1 fail (Digital Data Computer System)</div> <ul style="list-style-type: none"> Replace Digital Data Computer No. 1, (A1-F18AC-741-300, WP003 00) | <div>Digital Display Indicator</div> <ul style="list-style-type: none"> Caution line - MCI Backup cautions <div>Digital Data Computer No. 1</div> <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 033 thru 035 | Spare | |
| 036 | <div>2</div> <div>3</div> <div>Digital Data Computer No. 2 fail (Digital Data Computer System)</div> <ul style="list-style-type: none"> Replace Digital Data Computer No. 2, (A1-F18AC-741-300, WP004 00) | <div>Digital Display Indicator</div> <ul style="list-style-type: none"> Caution line - MC2 Backup symbology (all display formats) <div>Digital Data Computer No. 2</div> <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 037 | N/A | |
| <div>NOTE</div> <div>Aircraft power transients may cause the Digital Data Computer to perform power up BIT in flight and a period of frozen or blinking displays is expected.</div> | | |
| 038 | <div>Digital Data Computer 1 Warm Start Discrete fail (Digital Data Computer System)</div> <ul style="list-style-type: none"> Do table 7, (A1-F18AC-741-200, WP008 00) | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|---|---|
| NOTE | | |
| Aircraft power transients may cause the Digital Data Computer to perform power up BIT in flight and a period of frozen or blinking displays is expected. | | |
| 039 | Digital Data Computer 2 Warm Start Discrete fail (Digital Data Computer System) • Do table 7, (A1-F18AC-741-200, WP008 00) | |
| NOTE | | |
| When Code 040 is accompanied by Code(s) 041, 042, 043, 044, or 045, | | |
| 7 do table 1, (A1-F18AC-742-200, WP007 00) | | |
| 8 do table 1, (A1-F18AH-742-200, WP007 00). | | |
| 040 | 7 Radar Data Processor fail 8 Radar Data Processor fail (Radar System) 7 Replace Radar Target Data Processor CP-1326/APG-65, (A1-F18AC-742-300, WP004 00) 8 Replace Radar Data Processor CP-2062/APG-73, (A1-F18AH-742-300, WP004 00) | Digital Display Indicator • ADV - BIT • RDR BIT status message - DEGD or DEGD+OVRHT |
| NOTE | | |
| When Code 041 is accompanied by Code(s) 040, 042, 043, 044, or 045 | | |
| 7 do table 1, (A1-F18AC-742-200, WP007 00) | | |
| 8 do table 1, (A1-F18AH-742-200, WP007 00). | | |
| 041 | Radar Transmitter fail (Radar System) • Replace Radar Transmitter, 7 (A1-F18AC-742-300, WP007 00) 8 (A1-F18AH-742-300, WP007 00) | Digital Display Indicator • ADV - BIT • RDR BIT status message - DEGD or DEGD+OVRHT |
| NOTE | | |
| When Code 042 is accompanied by Code(s) 040, 041, 043, 044, or 045 | | |
| 7 do table 1, (A1-F18AC-742-200, WP007 00) | | |
| 8 do table 1, (A1-F18AH-742-200, WP007 00). | | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|---|--|
| 042 | <div>7</div> Radar Receiver-Exciter fail <div>8</div> Receiver fail (Radar System) <div>7</div> Replace Radar Receiver-Exciter, (A1-F18AC-742-300, WP006 00) <div>8</div> Replace Radar Receiver, (A1-F18AH-742-300, WP006) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD+OVRHT |
| NOTE | | |
| When Code 043 is accompanied by Code(s) 040, 041, 042, 044, or 045 | | |
| <div>7</div> do table 1, (A1-F18AC-742-200, WP007 00) | | |
| <div>8</div> do table 1, (A1-F18AH-742-200, WP007 00). | | |
| 043 | <div>7</div> Computer-Power Supply fail <div>8</div> Power Supply (Radar System) <div>7</div> Replace Computer-Power Supply, (A1-F18AC-742-300, WP005 00) <div>8</div> Replace Power Supply, (A1-F18AH-742-300, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD+OVRHT |
| NOTE | | |
| When Code 044 is accompanied by Code(s) 040, 041, 042, 043, or 045 | | |
| <div>7</div> do table 1, (A1-F18AC-742-200, WP007 00) | | |
| <div>8</div> do table 1, (A1-F18AH-742-200, WP007 00). | | |
| 044 | Antenna fail (Radar System) <ul style="list-style-type: none"> • Replace Antenna, <div>7</div> (A1-F18AC-742-300, WP008 00) <div>8</div> (A1-F18AH-742-300, WP008 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DEGD+OVRHT |
| NOTE | | |
| When Code 045 is accompanied by Code(s) 040, 041, 042, 043, or 044 | | |
| <div>7</div> do table 1, (A1-F18AC-742-200, WP007 00) | | |
| <div>8</div> do table 1, (A1-F18AH-742-200, WP007 00). | | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|--|--|
| 045 | Antenna Servo Electronics Gimbal Assembly fail (Radar System) <ul style="list-style-type: none"> Replace Antenna Servo Electronics Gimbal Assembly <div>7 (A1-F18AC-742-300, WP010 00)</div> <div>8 (A1-F18AH-742-300, WP010 00)</div> | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD+OVRHT |
| 046 | Transmitter Coolant Flow low (Radar System) <ul style="list-style-type: none"> If maintenance code 841 or 985 also displayed, do troubleshooting for that maintenance code (this WP) If maintenance code 841 or 985 is not displayed, do (A1-F18AC-410-200, WP146 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD+OVRHT |
| 047 (A) | Waveguide Pressure low (Radar System) <ul style="list-style-type: none"> If maintenance code 831 also displayed, do troubleshooting procedure, (A1-F18AC-410-200, WP155 00) If maintenance code 831 is not also displayed, do table 5, <div>7 (A1-F18AC-742-200, WP005 00)</div> <div>8 (A1-F18AH-742-200, WP005 00)</div> | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD+OVRHT |
| 048 | Weight-Off-Wheels/Inflight disagree (Radar System) <ul style="list-style-type: none"> If maintenance code 41 also displayed, do table 1, <div>7 (A1-F18AC-742-200, WP007 00)</div> <div>8 (A1-F18AH-742-200, WP007 00)</div> <ul style="list-style-type: none"> If maintenance code(s) 195, 893, 915, or 980 exist, do troubleshooting for indicated maintenance code, WP003 00. If related maintenance codes are not also displayed, do table 8, <div>7 (A1-F18AC-742-200, WP005 00)</div> <div>8 (A1-F18AH-742-200, WP005 00)</div> | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT RDR BIT status message - DEGD or DEGD+OVRHT |
| 049 thru 051 | N/A | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 052 (P) | Run Radar BIT (Radar System) <ul style="list-style-type: none"> • If any maintenance code 040 thru 048 also displayed, do maintenance action for that maintenance code (this WP) • If no code 040 thru 048 is also displayed, do initiated Built-In Test <div>7</div> (A1-F18AC-742-200, WP004 00) <div>8</div> (A1-F18AH-742-200, WP004 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RDR BIT status message - DEGD or DECD+OVRHT |
| 053 thru 060 | Spare | |
| 061 | <div>12</div> EGI data freeze (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 062 | <div>12</div> GPS Avionic Mux Bus 2x/2y fail (Global Positioning System) <ul style="list-style-type: none"> • Replace GPS Receiver (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • GPS BIT status message - MUX FAIL |
| 063 | <div>12</div> GPS Receiver fail (Global Positioning System) <ul style="list-style-type: none"> • Replace GPS Receiver (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • GPS BIT status message - DEGD |
| 064 | <div>12</div> GPS Battery fail (Global Positioning System) <ul style="list-style-type: none"> • Replace batteries in GPS Receiver (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • GPS BIT status message - OP GO |
| 065 | <div>12</div> GPS Key Parity error (Global Positioning System) <ul style="list-style-type: none"> • Reload data keys (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - PCODE |
| 066 | <div>12</div> GPS Key Incorrect (Global Positioning System) <ul style="list-style-type: none"> • Reload data keys (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - PCODE |
| 067 | <div>12</div> GPS Keys Not Loaded (Global Positioning System) <ul style="list-style-type: none"> • Load data keys (A1-F18AC-710-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - PCODE |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------------|--|--|
| 068 | Radar System Launch Initiated failed (Radar System) <ul style="list-style-type: none"> Do table 4, <div>7</div> (A1-F18AC-742-200, WP009 00) <div>8</div> (A1-F18AH-742-200, WP009 00) | |
| 069 (A) | Emergency Radar Mode Activated (Radar System) <ul style="list-style-type: none"> If emergency mode activation is confirmed, ignore code. If emergency radar mode activation cannot be confirmed, do table 1, <div>7</div> (A1-F18AC-742-200, WP009 00) <div>8</div> (A1-F18AH-742-200, WP009 00) | |
| 070 | Armament Computer fail (Stores Management System) <ul style="list-style-type: none"> Replace Armament Computer (A1-F18AC-740-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT Armament computer <ul style="list-style-type: none"> Fault indicator latched (black and white) |
| 071 | Left Wingtip Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Replace Left Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V), (A1-F18AC-740-300, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 072 | Left Outboard Wing Pylon Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP024 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 073 | Left Inboard Wing Pylon Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP024 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 074 | Left Fuselage Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP024 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 075 | N/A | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|---|--|
| 076 | Right Fuselage Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP024 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 077 | Right Inboard Wing Pylon Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Do table 1 (A1-F18AC-740-200, WP024 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 078 | Right Outboard Wing Pylon Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP024 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 079 | Right Wingtip Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Replace Right Wingtip Command Signal Encoder-Decoder KY-851/AYQ-9(V), (A1-F18AC-740-300, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 080 | Gun Command Signal Encoder-Decoder fail (Stores Management System) <ul style="list-style-type: none"> Replace Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V), (A1-F18AC-740-300, WP013 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 081 | Electrical Fuzing Power Supply fail (Stores Management System) <ul style="list-style-type: none"> Replace Electrical Fuzing Power Supply PP-6419/AWW-4 (V), (A1-F18AC-740-300, WP015 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SMS BIT status message - DEGD or DEGD+OVRHT |
| 082 (M) | Emergency Jettison Switch failed ON (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP014 00) | |
| 083 (M) | Select Jettison Panel Switch failed ON (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP014 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 084 (M) | Trigger Switch failed ON (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP014 00) | |
| 085 (M) | Bomb Release Switch failed ON (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP014 00) | |
| 086 thru 094 | N/A | |
| 095 | Left Digital Display Indicator fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Left Digital Display Indicator IP-1317(), (A1-F18AC-745-300, WP004 00) | Horizontal Indicator Display <ul style="list-style-type: none"> ADV - BIT Right Digital Display Indicator <ul style="list-style-type: none"> LDDI BIT status message - DEGD Fault indicator latched (black and white) |
| 096 | Right Digital Display Indicator fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Right Digital Display Indicator IP-1317(), (A1-F18AC-745-300, WP004 00) | Horizontal Indicator Display <ul style="list-style-type: none"> ADV - BIT Left Digital Display Indicator <ul style="list-style-type: none"> RDDI BIT status message Fault Indicator latched (black and white) |
| 097 | Horizontal Indicator fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Horizontal Indicator IP-1350/A, (A1-F18AC-745-300, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HUD BIT status message Fault Indicator latched (black and white) |
| 098 | Head-Up Display fail (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Head-Up Display AN/AVQ-28, (A1-F18AC-745-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HUB BIT status message Fault Indicator latched (black and white) |
| 099 thru 103 | N/A | |
| 104 | <div>10</div> Control-Indicator C-10250/ALR-67(V) fail (Countermeasures Warning and Control System) <ul style="list-style-type: none"> Replace Control-Indicator C-10250/ALR-67(V) (A1-F18AC-760-300, WP056 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|---|---|
| 105 | <div>10</div> <div>Left Forward Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control system)</div> <ul style="list-style-type: none"> Replace Left Forward Radar Receiver R-1248/ALR-67(V) (A1-F18AC-760-300, WP043 00) | |
| 106 | <div>10</div> <div>Left Rear Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Left Rear Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP050 00) | |
| 107 | <div>10</div> <div>Right Rear Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Right Rear Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP050 00). | |
| 108 | <div>10</div> <div>Right Forward Radar Receiver R-2148/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Right Forward Radar Receiver R-2148/ALR-67(V) (A1-F18AC-760-300, WP043 00) | |
| 109 | <div>10</div> <div>Integrated Antenna AS-3190/ALR-67(V) fail (Countermeasures Warning and Control System)</div> <ul style="list-style-type: none"> Replace Integrated Antenna AS-3190/ALR-67(V) (A1-F18AC-730-300, WP048 00) | |
| 10A | N/A | |
| 10C | N/A | |
| 10E | N/A | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--------------------|---|--|
| 10F | N/A | |
| 110 | <div>10</div> Radar Receiver R-2055/ALR-67(V) fail (Countermeasures Warning and Control System) <ul style="list-style-type: none"> • Replace Radar Receiver R-2055/ALR-67(V) (A1-F18AC-760-300, WP054 00) | |
| 111 | <div>10</div> Countermeasures Computer CP-1293/ALR-67(V) fail (Countermeasures Warning and Control System) <ul style="list-style-type: none"> • Replace Countermeasures Computer CP-1293/ALR-67(V) (A1-F18AC-760-300, WP055 00) | |
| 112 thru 113 | Spare | |
| 114 | <div>12</div> EGI WRA fail (Embedded GPS/INS) (A1-F18AC-710-300, WP006 00) | |
| 115 | Inertial Navigation System fail (Inertial Navigation System) <ul style="list-style-type: none"> • Replace Inertial Navigation Set, (A1-F18AC-730-300, WP004 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • INS BIT status message - DEGD or DEGD+OVRHT • HUD display - flashing velocity vector Inertial Navigation Set Fault Indicator latched (black and white) |
| 116 | Inertial Navigation System Shut-Down (Inertial Navigation System) <ul style="list-style-type: none"> • Do table 1, (A1-F18AC-730-200 WP 016 00) | |
| 117 thru 124 | N/A | |
| 125 | Air Data Computer fail (Air Data Computer System) <ul style="list-style-type: none"> • Replace Air Data Computer CP-1334/A • Do table 1, (A1-F18AC-560-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • ADC BIT status message - DEGD • Air Data Computer CP-1334/A Fault Indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|--|
| 126 | Right Airstream Direction Sensing (AOA) Unit fail (Air Data Computer System) <ul style="list-style-type: none"> Replace Right Airstream Direction Sensing Unit TRU-185/A, (A1-F18AC-560-300, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD |
| 127 | Left Airstream Direction Sensing (AOA) Unit fail (Air Data Computer System) <ul style="list-style-type: none"> Replace Left Airstream Direction Sensing Unit TRU-185/A, (A1-F18AC-560-300, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD |
| 128 | N/A | |
| 129 | Total Temperature out of range (Air Data Computer System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-560-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD |
| 12A | Reserved - EW Mux | |
| 12C | Reserved - EW Mux | |
| 12E | Reserved - EW Mux | |
| 130 | Standby Pressure Altimeter Baro Set Potentiometer fail (Air Data Computer System) <ul style="list-style-type: none"> Do table 1, Baro Set indication not correct (A1-F18AC-560-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD HUD display <ul style="list-style-type: none"> Baro Set indication not correct |
| 131 | Magnetic Azimuth Detector fail (Inertial Navigation System) <ul style="list-style-type: none"> Do Magnetic Azimuth Detector Initiated BIT Test, (A1-F18AC-730-200, WP015 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD Digital Display Indicator <ul style="list-style-type: none"> MAG HDG not correct |
| 132 | Magnetic Azimuth Detector Compensator Unit fail (Inertial Navigation System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-730-200, WP017 03) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT ADC BIT status message - DEGD Digital Display Indicator <ul style="list-style-type: none"> MAG HDG not correct |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 133 (A) | AOA Equality fail (Air Data Computer System) <ul style="list-style-type: none"> • Do table 1, (A1-F18AC-560-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • ADC BIT status message - DEGD HUD display <ul style="list-style-type: none"> • AOA not correct |
| 134 thru 144 | Spare | |
| 145 | Control-Converter fail (Digital Data Computer System) <ul style="list-style-type: none"> • When Receiver Decoding Group AN/ARA-63 (ILS) is selected on Electronic Equipment Control C-10380/ASQ and Radio Receiver R-1379 ()/ARA-63 is not installed, ignore. • When Radio Receiver R-1379() is installed, replace Control-Converter C-10382/A, (A1-F18AC-741-300 WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • CSC BIT status message - DEGD or DEGD+OVRHT • TCN BIT status message - DEGD • IBS BIT status message - DEGD • ICS BIT status message - DEGD • ILS BIT status message - DEGD • AUG BIT status message - DEGD • BCN BIT status message - DEGD • IFF BIT status message - DEGD • RALT BIT status message - DEGD • Caution line - CNI Control-converter <ul style="list-style-type: none"> • Fault Indicator latched (black and white) |
| 146 (I) | Intercommunication Amplifier-Control fail (Intercommunication System) <ul style="list-style-type: none"> • When equipment not installed or if proper headset impedance is not applied (600Ω), ignore • When equipment installed and headphone impedance is correct, replace Intercommunication Amplifier-Control AM-7360/A, (A1-F18AC-600-300, WP012 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • ICS BIT status message - DEGD |
| 147 (I) | Receiver-Transmitter fail (Electronic Altimeter System) <ul style="list-style-type: none"> • Replace Receiver-Transmitter RT-1015()/APN-194(V), (A1-F18AC-600-300, WP021 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • RALT BIT status message - DEGD HUD display <ul style="list-style-type: none"> • Radar altitude display not correct |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 148 | Receiver Decoding Group fail (Instrument Landing System) <ul style="list-style-type: none"> • When equipment not installed, ignore. • When equipment installed, replace Radio Receiver R-1379/ARA-63 (A1-F18AC-630-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • ILS BIT status message - DEGD HUD display <ul style="list-style-type: none"> • ILS symbology not correct Pulse decoder <ul style="list-style-type: none"> • Fault Indicator latched (white) Radio receiver <ul style="list-style-type: none"> • Fault Indicator latched (white) |
| 149 (I) | Interference Blanker fail (Interference Blanker System) <ul style="list-style-type: none"> • Replace Interference Blanker, (A1-F18AC-760-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • IBS BIT status message - DEGD Interference blanker <ul style="list-style-type: none"> • Fault Indicator latched (black and white) |
| 150 | <div>7</div> IFF System fail (IFF System) <ul style="list-style-type: none"> • When equipment not installed, ignore. • When equipment installed, observe ANT STATUS, KIT STATUS, and RT STATUS WRA fault indicators in door 13L and do maintenance action for latched indicator (WP004 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • IFF BIT status message - DEGD • Caution line - IFF 4 |
| 151 (I) | Radar Receiver fail (Radar Beacon System) <ul style="list-style-type: none"> • When equipment not installed, ignore • When equipment installed, replace Radar Receiver R-1623/APN, (A1-F18AC-630-300, WP009 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • AUG BIT status message - DEGD Radar Receiver R-1623/APN <ul style="list-style-type: none"> • Fault Indicator latched (white) |
| 152 (I) | Receiver-Transmitter fail (TACAN System) <ul style="list-style-type: none"> • Replace Receiver-Transmitter RT-1159/A, (A1-F18AC-600-300, WP015 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • TCN BIT status message - DEGD HUD display <ul style="list-style-type: none"> • TACAN symbology not correct |
| 153 (I) | Receiver-Transmitter fail (Radar Beacon System) <ul style="list-style-type: none"> • When equipment not installed, ignore • When equipment installed, replace Radar Receiver-Transmitter RT-1028/APN-202, (A1-F18AC-630-300, WP008 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • BCN BIT status message - DECD Receiver-transmitter <ul style="list-style-type: none"> • Fault indicator latched (white) |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 154 thru 158 | Spare | |
| 159 | <div>12</div> Mission Data Loader (Flight Incident Recorder and Monitoring System) • Replace Mission Data Loader MU-1053A/ASQ-215 (A1-F18AC-580-300) | Digital Display Indicator • ADV - BIT • MU BIT status message - DEGD MUX FAIL • Caution Line - MU LOAD |
| 160 | <div>12</div> Mission Data Loader to Digital Data Computer No. 1 Data Transfer fail (Flight Incident Recorder and Monitoring System) • Replace Mission Data Loader MU-1053A/ASQ-215 (A1-F18AC-580-300) | Digital Display Indicator • ADV - BIT • MDL BIT status message - DEGD • Caution Line - MDL LOAD |
| 161 thru 164 | Spare | |
| 165 | Signal Data Recorder RO-508/ASM-612 fail (Maintenance Status Display and Recording System) • Replace Signal Data Recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00) | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD • Caution Line - CAUT DEGD Signal Data Recorder RO-508/ASM-612 • Fault indicator latched (black and white) |
| 166 | Magnetic Tape Cartridge MX-9972/ASM-612 fail (Maintenance Status Display and Recording System) • Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00) | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD Magnetic Tape Cartridge MX-9972/ASM-612 • Fault indicator latched (black and white) |
| 167 | Signal Data Converter CV-3493/ ASM-612 fail (Maintenance Status Display and Recording System) • See table 1 (A1-F18AC-580-200, WP005 00) | Digital Display Indicator • ADV - BIT • SDRS BIT status message - DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|---|
| 168 | Strain circuit failure (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With Code 926 but without codes 600, 601, 602, 603, 604, or 605; replace Signal Data Converter CV 3494/ASM-612 (A1-F18AC-580-300, WP003 00) • With codes 600, 601, 602, 603, 604, and 605; replace Signal Data Converter CV 3494/ASM-612 (A1-F18AC-580-300, WP003 00) • With code 600 and with or without code 926, see table 2, (A1-F18AC-580-200, WP005 00) • With code 601 and with or without code 926, see table 4, (A1-F18AC-580-200, WP005 00) • With code 602 and with or without code 926, see table 5, (A1-F18AC-580-200, WP005 00) • With code 603 and with or without code 926, see table 6, (A1-F18AC-580-200, WP005 00) • With code 604 and with or without code 926, see table 7, (A1-F18AC-580-200, WP005 00) • With code 605 and with or without code 926, see table 8, (A1-F18AC-580-200, WP005 00) • Code 169 only, see table 9, (A1-F18AC-580-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message - DEGD • Caution line - CAUT DEGD Signal Data Converter (CV-3493/ASM-612) <ul style="list-style-type: none"> • Fault indicator latched (black and white) |
| 169 thru 178 | N/A | |
| 179 | Receiver-Transmitter-Processor fail (Data Link System) <ul style="list-style-type: none"> • Replace Receiver-Transmitter-Processor RT-1379()/ASW, (A1-F18AC-630-300, WP016 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • D/L BIT status message - DEGD • TILT - Link 4 display • UTM FAIL - Link 4 display • ACL N/A - Link 4 display • CPL N/A - Link 4 display |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 180 | Data Link excessive VSWR detected (Data Link System) <ul style="list-style-type: none"> If maintenance code 176 is also displayed, do troubleshooting procedure, (A1-F18AC-FIM-000, WP167 00) If maintenance code 176 is not also displayed, do table 4, (A1-F18AC-630-200, WP016 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT D/L BIT status message - DEGD COMM 1 BIT status message - DEGD TILT - Link 4 display UTM FAIL - Link 4 display ACL N/A - Link 4 display CPL N/A - Link 4 display |
| 181 thru 184 | N/A | |
| 185 (P, I) | Roll-Pitch-Yaw Computer (FCCA) fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT |
| 186 (P, I) | Roll-Pitch-Yaw Computer (FCCB) fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 187 | Linear Electrical Accelerometer fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 188 (P, I) | Linear Electrical Accelerometer fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 189 (P, I) | Air Data Sensor fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 190 (P, I) | Rate Gyroscope fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|---|---|
| 191 (P, I) | Rate Gyroscope fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 192 (I) | Control Stick Position Sensors; Lateral Stick Position Sensor or Longitudinal Feel Trim Actuator/Stick Position Sensor fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 193 (I) | Rudder Control fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 194 (I) | FCS Control Panel fail (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 195 (P, I) | Read BIT Logic Inspection (BLIN) Codes (Electronic Flight Control System) <ul style="list-style-type: none"> When MMP code 890 thru 895 with BLIN code 73 thru 100 occur, do maintenance for MMP code, WP003 00. When no MMP 890 thru 895 with BLIN 73 thru 100 are also displayed, do, (A1-F18AC-570-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 196 thru 200 | N/A | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 201 (P, I) | Cable from FCS Control Panel Connector J1 (84P-H003A) to FCCA Connector J8 (84P-F001H) failed (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 202 (P, I) | Cable from FCS Control Panel Connector J2 (84P-H003B) to FCCB Connector J8 (84P-F002H) failed (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 203 (P, I) | Failure of one of the cables listed below: <ul style="list-style-type: none"> Cockpit Control Stick Grip Adapter Assembly connector (84P-J037) to FCCA connector J2 (84P-F001B) Rear Cockpit Control Stick Grip Adapter assembly connector J1 (84P-L096) to FCCB connector J8 (84P-F002H) Rear Cockpit Control Stick Grip Adapter connector J8 (84P-F001H) Cockpit Control Stick Grip Adapter Assembly connector J1 (84P-J037) to FCCB connector J8 (84P-F002H) (Electronic Flight Control System) Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 204 (P, I) | <p>Failure of one of the cables listed below:</p> <ul style="list-style-type: none"> • Either Longitudinal Feel Trim Actuator/Stick Position Sensor Connector P3 (4J-C026C) or 84J-J122A (P1) of Lateral Stick Position Sensor to either FCCA Connector J2 (84P-F001B) or FCCA Connector J8 (84P-F001H) • Either Longitudinal Feel Trim Actuator/Stick Position Sensor Connector P2 (84J-C026B) or (P2) of Lateral Stick Position Sensor Connector P2 (84J-J122B) to either FCCB Connector J2 (84P-F002B) or FCCB Connector J8 (84P-F002H) <p>(Electronic Flight Control System)</p> <ul style="list-style-type: none"> • Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) • Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • FCSCA BIT status message - DEGD or DEGD+OVRHT • FCSB BIT status message - DEGD or DEGD+OVRHT |
| 205 (P, I) | <p>Cable from Rudder Control Connector P1 (84J-J025A) to FCCA Connector J8 (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) • Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • FCSCA BIT status message - DEGD or DEGD+OVRHT • FCSB BIT status message - DEGD or DEGD+OVRHT |
| 206 (P, I) | <p>Cable from Rudder Control Connector P2 (4J-J025B) to FCCB Connector J8 (84P-F002H) failed (Electronic Flight Control System)</p> <ul style="list-style-type: none"> • Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) • Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • ADV - BIT • FCSCA BIT status message - DEGD or DEGD+OVRHT • FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 207 (P, I) | Cable from Rear Rudder Control Connector P1 (84J-L097A) to FCCA Connector JS (84P-F001H) failed (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance /BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 208 (P, I) | Cable from Rear Rudder Control Connector P2 (84J-L097B) to FCCB Connector J8 (84P-F002H) failed (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 209 (P, I) | Cable from Air Data Sensor Connector J1 (84P-D012A) to FCCA Connector J11 (84P-F001L) failed (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 210 (P, I) | Cable from Air Data Sensor Connector J2 (84P-D012B) to FCCB Connector J11 (84P-F002L) failed (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 211 (P, I) | Failure of one of the cables listed below : <ul style="list-style-type: none"> Linear Electrical Accelerometer Connector J1 (84P-F004A) to FCCA Connector J4 (84P-F001D) Linear Electrical Accelerometer Connector J2 (84P-F004B) to FCCA Connector J11 (84P-F001L) (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 212 (P, I) | Failure of one of the cables listed below: <ul style="list-style-type: none"> Linear Electrical Accelerometer Connector J1 (84P-F004A) to FCCB Connector J4 (84P-F002D) Linear Electrical Accelerometer Connector J2 (84P-F005B) to FCCB Connector J11 (84P-F002L) (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 213 (P, I) | Failure of one of the cables listed below: <ul style="list-style-type: none"> Rate Gyroscope Connector J1 (84P-F007A) to FCCA Connector J4 (84P-F001D) Rate Gyroscope Connector J1 (84P-F007A) to FCCA Connector J11 (84P-F001L) (Electronic Flight Control System) <ul style="list-style-type: none"> Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 214 (P, I) | Failure of one of the cables listed below : <ul style="list-style-type: none"> • Rate Gyroscope Connector J1 (84P-F006A) to FCCB Connector J4 (84P-F002D) Rate Gyroscope Connector J2 (84P-F006B) to FCCB Connector J11 (84P-F002L) (Electronic Flight Control System) • Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) • Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • FCSEA BIT status message - DEGD or DEGD+OVRHT • FCSB BIT status message - DEGD or DEGD+OVRHT |
| 215 (P, I) | Failure of cable from Nosewheel Steering Power Unit Connectors J1 (84P-G035B) and/or J2 (84P-G035B) to both FCCA Connector J8 (84P-F001H) and FCCB Connector J8 (84P-F002H) (Electronic Flight Control System) <ul style="list-style-type: none"> • Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) • Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • FCSEA BIT status message - DEGD or DEGD+OVRHT • FCSB BIT status message - DEGD or DEGD+OVRHT |
| 216 (P, I) | Failure of one of the cables listed below: <ul style="list-style-type: none"> • FCCA Connector J5 (84P-F001E) to FCCB Connector J3 (84P-F002C) • FCCA Connector J10 (84P-F001K) to FCCB Connector J12 (84P-F002M) • FCCB Connector J5 (84P-F002E) to FCCA Connector J3 (84P-F001C) • FCCB Connector J10 (84P-F002K) to FCCA Connector J12 (84P-F001M) • FCCA Connector J1 (84P-F001A) to FCCA Connector J11 (84P-F001L) • FCCA Connector J4 (84P-F001D) to FCCA Connector J9 (84P-F001J) • FCCB Connector J1 (84P-F002A) to FCCB Connector J11 (84P-F002LJ) • FCCB Connector J4 (84P-F002D) to FCCB Connector J9 (84P-F002J) (Electronic Flight Control System) <ul style="list-style-type: none"> • Record associated BLIN codes, (A1-F18AC-570-200, WP006 00) • Do Troubleshooting - Maintenance/BLIN Codes procedure, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • FCSEA BIT status message - DEGD or DEGD+OVRHT • FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|---|
| 217 | N/A | |
| 218 (P) | Run Maintenance BIT; NWS test (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP005 02) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 219 (P, I) | Run Maintenance BIT; ATC test (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP005 02) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 220 thru 221 | N/A | |
| 222 | Run Maintenance BIT; Left Stabilator tests, TG2 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 223 | Run Maintenance BIT; Right Stabilator tests, TG3 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP00700) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 224 (P, I) | Run Maintenance BIT; Left Trailing Edge Flap tests, TG4 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 225 (P, I) | Run Maintenance BIT; Right Trailing Edge Flap tests, TG5 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|---|
| 226 (P, I) | Run Maintenance BIT; Leading Edge Flap tests, TG6 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 227 (P, I) | Run Maintenance BIT; Rudder tests, TG7 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 228 (P, I) | Run Maintenance BIT; Air Data Sensor and Airstream Direction Sensing (AOA) Unit tests, TG8 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP005 04) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 229 | N/A | |
| 230 (P, I) | Run Maintenance BIT; Aileron tests, TG 10 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 231 (P, I) | Run Maintenance BIT; Stick/NWS/ATC tests, TG 11 (Electronic Flight Control System) <ul style="list-style-type: none"> Do, (A1-F18AC-570-200, WP005 05) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT FCSA BIT status message - DEGD or DEGD+OVRHT FCSB BIT status message - DEGD or DEGD+OVRHT |
| 232 thru 233 | N/A | |
| 234 | Com 1 PBIT fail detected (UHF/VHF Communications System) <ul style="list-style-type: none"> Replace UHF/VHF Receiver-Transmitter No. 1, RT-1824/ARC-210 (A1-F18AC-600-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT COM BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 235 | Com 1 Applique fail (UHF/VHF Communications System) • Replace UHF/VHF Receiver-Transmitter No. 1, RT-1824/ARC-210 (A1-F18AC-600-300, WP003 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 236 | VHF/UHF Com 1 RT fail (VHF/UHF Communications System) • Replace VHF/UHF Receiver-Transmitter No. 1, RT-1824/ARC-210 (A1-F18AC-600-300, WP003 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 237 | VHF/UHF Com 1 High VSWR (VHF/UHF Communications System) • Do table 1, (A1-F18AC-600-200, WP004 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 238 | VHF/UHF Com 2 PBIT Detected (VHF/UHF Communications System) RT-1824/ARC-210 or RT-1556/ARC-210 • Replace UHF/VHF Receiver-Transmitter No. 2, (A1-F18AC-600-300, WP003 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 239 | VHF/UHF Com 2 Applique Fail (VHF/UHF Communications System) RT-1824/ARC-210 or RT-1556/ARC-210 • Replace UHF/VHF Receiver-Transmitter No. 2, (A1-F18AC-600-300, WP003 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 23A | DCS Battery Low | |
| 240 | VHF/UHF Com 2 RT Fail (VHF/UHF Communications System) RT-1824/ARC-210 or RT-1556/ARC-210 • Replace UHF/VHF Receiver-Transmitter No. 2, (A1-F18AC-600-300, WP003 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 241 | VHF/UHF Com 2 High VSWR (VHF/UHF Communications System) • Do table 1, (A1-F18AC-600-200, WP004 00) | Digital Display Indicator • ADV - BIT • COM BIT status message - DEGD or DEGD+OVRHT |
| 242 thru 299 | N/A | |
| 300 | Optics-Stabilizer fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 301 | Infrared Receiver fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 302 | Roll Drive Amplifier fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 303 | Roll Drive Motor Fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005-00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 304 | Power Supply fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 305 | Controller-Processor fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 306 | Servo Controller fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 307 | Pod Forward Section fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 308 | Temperature Control fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 309 | Pod Aft Section fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 310 | Left Heat Exchanger Blower fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 311 | Right Heat Exchanger Blower fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 312 | Pod Forward Section Fan fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator • ADV - BIT • FLIR BIT status message - DEGD or DEGD+OVRHT |
| 313 | Laser Transceiver fail (Laser Detector Tracker/Ranger System) • Do Table 1, (A1-F18AC-744-200, WP005 01) | Digital Display Indicator ADV - BIT LDTR BIT status message - DEGD or DEGD+OVRHT |
| 314 | Laser Power Supply fail (Laser Detector Tracker/Ranger System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | Digital Display Indicator ADV - BIT LDTR BIT status message - DEGD or DEGD+OVRHT |
| 315 | Reserved - Target Processor | |
| 316 | FLIR Checksum Fail (Forward Looking Infrared System) • Do Table 1, (A1-F18AC-744-200, WP005 00) | |
| 317 thru 319 | N/A | |
| 31C | Reserved | |
| 31E | Reserved | |
| 31F | Reserved | |
| 320 thru 324 | N/A | |
| 325 | Laser Detector fail (Laser Detector Tracker System) • Replace Laser Detector DT-612/ASQ-173, (A1-F18AC-743-300, WP003 00) | Digital Display Indicator • ADV - BIT • LDT BIT status message - DEGD or DEGD+OVRHT Laser Detector DT-612/ASQ-173 fault indicator • Latched (black and white) |
| 326 | Interconnecting Box fail (Laser Detector Tracker System) • Replace Interconnecting Box J-3656/ASQ-173, (A1-F18AC-743-300, WP004 00) | Digital Display Indicator • ADV - BIT • LDT BIT status message - DEGD or DEGD+OVRHT • CAM BIT status message - DEGD or DEGD+OVRHT Interconnecting Box J-3656/ASQ-173 fault indicator • Latched (black and white) |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 327 thru 329 | N/A | |
| 32A | Reserved | |
| 32C | Reserved | |
| 32E | Reserved | |
| 32F | Reserved | |
| 330 thru 333 | Spare | |
| 334 | <div>8</div> APX-111 IT WRA fail (IFF System) <ul style="list-style-type: none"> Replace Radio Receiver -Transmitter (A1-F18AC-600-300, WP028 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD or DEGD+OVRHT |
| 335 | <div>8</div> APX-111 Crypto WRA fail (IFF System) <ul style="list-style-type: none"> Replace Crypto Computer (A1-F18AC-600-300, WP028 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD or DEGD+OVRHT |
| 336 | <div>8</div> Upper Beam Forming Network Fail (IFF System) <ul style="list-style-type: none"> Replace Antenna Position Control (A1-F18AC-600-300, WP029 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD or DEGD+OVRHT |
| 337 | N/A | |
| 338 | <div>8</div> Upper Transponder Ant/Channel fail (IFF System) <ul style="list-style-type: none"> Do Table 3, (A1-F18AC-600-200, WP055 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD or DEGD+OVRHT |
| 339 | <div>8</div> Lower Transponder Ant/Channel fail (IFF System) <ul style="list-style-type: none"> Do Table 4, (A1-F18AC-600-200, WP055 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD or DEGD+OVRHT |
| 33A | Reserved | |
| 33C | Reserved | |
| 33E | Reserved | |
| 33F | Reserved | |
| 340 | <div>8</div> CIT Battery Low (IFF System) <ul style="list-style-type: none"> Replace Crypto Computer Battery (A1-F18AC-600-300, WP028 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT IFF BIT status message - DEGD or DEGD+OVRHT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 341 342 thru 349 | Test Value N/A | |
| 34A | Reserved | |
| 34C | Reserved | |
| 34E | Reserved | |
| 34F | Reserved | |
| 350 | Strike Recording Still Picture Camera fail (Strike Camera System) • Replace Strike Recording Still Picture Camera KB-35A, (A1-F18AC-743-300, WP009 00) | Digital Display Indicator • ADV - BIT • CAM BIT status message - DEGD or DEGD+OVRHT |
| 351 | Camera Drive-Mounting fail (Strike Camera System) • Replace Camera Drive-Mounting TG-244/ASQ-173, (A1-F18AC-743-300, WP008 00) | Digital Display Indicator • ADV - BIT • CAM BIT status message - DEGD or DEGD+OVRHT Camera Drive-Mounting TG-244/ASQ-173 fault indicator • Latched (black and white) |
| 352 thru 359 | N/A | |
| 35A | Reserved | |
| 35C | Reserved | |
| 35E | Reserved | |
| 35F | Reserved | |
| 360 thru 362 | N/A | |
| 363 | ALQ-126 fail (Electronic Countermeasures System) • Do table 1, (A1-F18AC-760-200, WP025 00) | Digital Display Indicator • ADV - BIT • ALQ-126 BIT Status Message - DEGD |
| 364 | <div>8</div> Interrogator Antenna No. 1 fail (IFF System) • Do table 1, (A1-F18AC-600-200, WP056 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 365 | <div>8</div> Interrogator Antenna No. 2 fail (IFF System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-600-200, WP056 00) | |
| 366 | <div>8</div> Interrogator Antenna No. 3 fail (IFF System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-600-200, WP056 00) | |
| 367 | <div>8</div> Interrogator Antenna No. 4 fail (IFF System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-600-200, WP056 00) | |
| 368 | <div>8</div> Interrogator Antenna No. 5 fail (IFF System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-600-200, WP056 00) | |
| 369 | N/A | |
| 36A | Reserved | |
| 36C | Reserved | |
| 370 thru 374 | N/A | |
| 375 | Command Launch Computer fail (Stores Management System) <ul style="list-style-type: none"> Replace Command Launch Computer CP-1001A/AWG, (A1-F18AC-010-00, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD Command Launch Computer CP-1001A/AWG fault indicator <ul style="list-style-type: none"> Latched (black and white) |
| 376 | CLC/SMS Interface fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD |
| 377 | CLC/ALR-67 Interface fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 378 | Station 2 HARM Missile fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 379 | Station 3 HARM Missile fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 380 | Station 7 HARM Missile fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 381 | Station 8 HARM Missile fail (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT HARM BIT status message - CLC BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 382 | Station 2 HARM Missile Interface degrade (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 383 | Station 3 HARM Missile Interface degrade (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 384 | Station 7 HARM Missile Interface degrade (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 385 | Station 8 HARM Missile Interface degrade (Stores Management System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 386 thru 388 | N/A | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------------|---|---|
| 389 | <div>7</div> Radar data link hardware not installed (Radar System) <ul style="list-style-type: none"> Do Nose Wheelwell DDI Built-In Test Reset procedure, (A1-F18AC-LMM-000) Do table 2, (A1-F18AC-742-200, WP007 00) If maintenance code 389 repeats, do table 1, (A1-F18AC-742-200, WP005 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - AM DL |
| 390 | Weapon - Station 1 fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 391 | Weapon - Station 2 Left fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT Stores display station status DEGD, SDEGD, or WDEGD |
| 392 | Weapon - Station 2 Right fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 393 | Weapon - Station 3 Left fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 394 | Weapon - Station 3 Right fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 395 | Weapon - Station 4 Left fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 396 | Weapon - Station 4 Right fail (Weapons System) • Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 397 | Weapon - Station 5 Left fail (Weapons System) • Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores display station status DEGD, SDEGD, or WDEGD |
| 398 | Weapon - Station 5 Right fail (Weapons System) • Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 399 | Weapon - Station 6 Left Fail (Weapons System) • Do table 1, (A1-F18AC-740-200, WP014 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 39A | Reserved - SW Ambiguity | |
| 39C | Reserved - SW Ambiguity | |
| 39E | Reserved - SW Ambiguity | |
| 39F | Reserved - SW Ambiguity | |
| 400 | Weapon - Station 6 Right fail (Weapons System) • Do table 1, (A1-F18-AC-740-200, WP010 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 401 | Weapon - Station 7 Left fail (Weapons System) • Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 402 | Weapon - Station 7 Right fail (Weapons System) • Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator • ADV - BIT • WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | Malfunction (System) Maintenance Action | Possible Related Indications |
|-------------------------------|---|---|
| 403 | Weapon - Station 8 Left fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 404 | Weapon - Station 8 Right fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores Display Station Status DECD, SDEGD, or WDEGD |
| 405 | Weapon - Station 9 fail (Weapons System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-740-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT WPNS BIT status message - DEGD Stores Display Station Status DEGD, SDEGD, or WDEGD |
| 406 thru 414 | N/A | |
| 415 | Digital Data Computer No. 1 Discrete fail (Digital Data Computer System) <ul style="list-style-type: none"> Do table 13, (A1-F18AC-741-200, WP008 00) | |
| 416 | Digital Data Computer No. 2 Discrete fail (Digital Data Computer System) <ul style="list-style-type: none"> Do table 13, (A1-F18AC-741-200, WP008 00) | |
| 417 thru 418 | N/A | |
| 419 | Digital Data Computer No. 1 Installation error (Digital Data Computers System) <ul style="list-style-type: none"> Do Nose Wheelwell DDI Built-In Test RESET procedure (A1-F18AC-LMM-000) Reload Digital Data Computer No. 1 (A1-F18AC-SCM-000, WP006 00) | |
| 420 | N/A | |
| 421 | No Spare Lamps (Multipurpose Display Group) <ul style="list-style-type: none"> Replace Lamp Assembly, (A1-F18AC-743-300, WP023 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|---|
| 422 | N/A | |
| 423 | Hardware Equipment Discrete fail (Digital Data Computer System) • Do table 10, (A1-F18AC-741-200, WP008 00) | Digital Display Indicator • Caution Line - MC CONFIG |
| 424 | Aircraft Configuration Discrete fail (Digital Data Computer System) • Do table 10, (A1-F18AC-741-200, WP008 00) | Digital Display Indicator • Caution Line - MC CONFIG |
| 425 thru 426 | N/A | |
| 427 | ADC Source Correction Error not correct (Air Data Computer System) • Do table 1, (A1-F18AC-560-200, WP005 00) | |
| 428 | Mission Computer 1 Upgrade (Digital Data Computer System) • Do table 1, (A1-F18AC-741-200, WP003 00) | Digital Display Indicator • Caution Line - MC CONFIG |
| 429 | Mission Computer 2 Upgrade (Digital Data Computer System) • Do table 1, (A1-F18AC-741-200, WP003 00) | Digital Display Indicator • Caution Line - MC CONFIG |
| 430 | MCI not mux bus 6 compatible (Digital Data Computer System) • Do table 1, (A1-F18AC-741-200, WP003 00) | Digital Display Indicator • Caution Line - MC CONFIG |
| 431 | MC2 not mux bus 6 compatible (Digital Data Computer System) • Do table 1, (A1-F18AC-741-200, WP003 00) | Digital Display Indicator • Caution Line - MC CONFIG |
| 432 | MC mux bus 6 miss match (Digital Data Computer System) • Do table 1, (A1-F18AC-741-200, WP003 00) | Digital Display Indicator • Caution Line - MC CONFIG |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 433 thru 599 | N/A | |
| 600 | Wingfold Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 2 (A1-F18AC-580-200, WP005 00) • With codes 169, 601, 602, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003) • Code 600 only, no maintenance action required | Digital Display Indicator <ul style="list-style-type: none"> • ADV BIT • SDRS BIT status message DEGD • Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |
| 601 | Forward 1 Fuselage Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 4 (A1-F18AC-580-200, WP005 00) • With codes 169, 600, 602, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00) • Code 601 only, no maintenance action required | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message DEGD • Caution line CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |
| 602 | Left Horizontal Stabilator Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> • With codes 169 and 926, see table 5 (A1-F18AC-580 200, WP005 00) • With codes 169, 600, 601, 603, 604 and 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00) • Code 602 only, no maintenance action required | Digital Display Indicator <ul style="list-style-type: none"> • ADV - BIT • SDRS BIT status message - DEGD • Caution line CAUT DEGD Signal Data Converter CV-3493/ASM-612 • Fault indicator latched (black and white) |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|---|--|
| 603 | Right Horizontal Stabilator Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 6 (A1-F18AC-580-200, WP005 00) With codes 169, 600, 601, 602, 604, 605; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00) Code 603 only, no maintenance action required | Digital Display Indicator <ul style="list-style-type: none"> ADV BIT SDRS BIT status message DEGD Caution line, CAUT DEGD Signal Data CV-3493/ASM-612 Fault indicator latched (black and white) |
| 604 | Left Vertical Stabilizer Strain Gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 7 (A1-F18AC-580-200, WP005 00) With codes 169, 600, 601, 602, 603 and 605; replace Signal Data | Digital Display Indicator <ul style="list-style-type: none"> ADV BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). Code 604 only, no maintenance action required. |
| 605 | Right vertical stabilizer strain gage fail (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> With codes 169 and 926, see table 8 (A1-F18AC-580-200, WP005 00) With code 169, 600, 601, 602, 603 and 604; replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00) Code 605 only, no maintenance action required | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDRS BIT status message DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 Fault indicator latched (black and white) |
| 606 thru 649 | N/A | |
| 650 | Left Engine Fan Speed Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-270-200, WP006 01) | |
| 651 | Left Engine Compressor Speed Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-270-200, WP006 01) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 652 | Left Engine EGT Signal fail (Engine Instrument System) Do table 2, (A1-F18AC-270-200, WP007 00) | Digital Display Indicator <ul style="list-style-type: none"> • Engine Monitor Display • • LEFT EGT - 1311°C • Engine Monitor - Crew/Station Indicator AEU-12/A • • L ENGINE TEMP indication not correct. |
| 653 thru 657 | N/A | |
| 658 | Left Fuel Temperature Signal fail (Fuel System) <ul style="list-style-type: none"> • If maintenance code 674 also displayed, do Replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00) • If maintenance code 674 is not also displayed, do table 2, (A1-F18AC-460-200, WP016 00) | Digital Display Indicator <ul style="list-style-type: none"> • Engine Monitor Display • • RIGHT FUEL TEMP - blank • • LEFT FUEL TEMP - blank |
| 659 | Left Engine Compressor Discharge Pressure Signal fail (Engine Instrument System) <ul style="list-style-type: none"> • Do table 3, (A1-F18AC-270-200, WP012 00) | Digital Display Indicator <ul style="list-style-type: none"> • Engine Monitor Display • • LEFT CDP - blank. |
| 660 | Left Engine Turbine Discharge Pressure Signal fail (Engine Instrument System) <ul style="list-style-type: none"> • Do table 4, (A1-F18AC-270-200, WP012 00) | Digital Display Indicator <ul style="list-style-type: none"> • Engine Monitor Display • • LEFT TDP - blank |
| 661 | Left Engine Inlet Temperature Signal fail (Engine Instrument System) <ul style="list-style-type: none"> • Do table 3, (A1-F18AC-270-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - L IN TEMP Voice Alert message - "Engine Left, Engine Left" |
| 662 | Left Engine Oil Pressure Signal fail (Engine Instrument System) <ul style="list-style-type: none"> • Do table 5, (A1-F18AC-270-200, WP011 00) | Digital Display Indicator <ul style="list-style-type: none"> • Engine Monitor Display • • LEFT OIL PRESS - blank • Engine Monitor - Crew Station Indicator AEU-12/A • • L engine Oil Pressure Indicator not correct. |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 663 thru 665 | N/A | |
| 666 | Right Engine Fan Speed Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-270-200, WP006 01) | |
| 667 | Right Engine Compressor Speed Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-270-200, WP006 01) | |
| 668 | Right Engine EGT Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-270-200, WP007 00) | Engine Monitor Digital Display Indicator <ul style="list-style-type: none"> Engine Monitor Display • RIGHT EGT - 1311 °C • Engine Monitor |
| 669 thru 673 | Spare | |
| 674 | Right Fuel Temperature Signal fail (Fuel System) <ul style="list-style-type: none"> If maintenance code 658 also displayed, do Replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-500, WP003 00) If maintenance code 658 is not displayed, do table 2, (A1-F18AC-460-200, WP016 00) | Digital Display Indicator <ul style="list-style-type: none"> Engine Monitor Display • RIGHT FUEL TEMP - blank • LEFT FUEL TEMP - blank |
| 675 | Right Engine Compressor Discharge Pressure Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-270-200, WP012 00) | Digital Display Indicator <ul style="list-style-type: none"> Engine Monitor Display • RIGHT CDP blank |
| 676 | Right Engine Turbine Discharge Pressure Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 4, (A1-F18AC-270-200, WP012 00) | Digital Display Indicator <ul style="list-style-type: none"> Engine Monitor Display • RIGHT TDP - blank |
| 677 | Right Engine Inlet Temperature Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-270-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R IN TEMP Voice alert message - "Engine Right, Engine Right" |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 678 | Right Engine Oil Pressure Signal fail (Engine Instrument System) <ul style="list-style-type: none"> Do table 5, (A1-F18AC-270-200, WP011 00) | Digital Display Indicator <ul style="list-style-type: none"> Engine Monitor Display RIGHT OIL PRESS - blank |
| 679 thru 681 | N/A | |
| 682 | Reserved for MMP BIT | |
| 683 thru 701 | N/A | |
| 702 | Left Engine Level 3 EGT Overtemp (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies level 3 overtemp (see figure 4, A1-F18AC-270-200, WP003 00), replace engine (A1-F18AC-270-300, WP003 00) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify level 3 overtemp, do table 1, (A1-F18AC-270-200, WP007 00) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L EGT HIGH Voice alert message - "Engine Left, Engine Left" |
| 703 | Left Engine Fan Vibration High (Engine Instrument System) <ul style="list-style-type: none"> When no pilot confirmation, ignore If pilot felt vibrations, do table 1, (A1-F18AC-270-200, WP009 01) | |
| 704 | Left Engine Compressor Vibration High (Engine Instrument System) <ul style="list-style-type: none"> When no pilot confirmation, ignore If pilot felt vibrations, do table 1, (A1-F18AC-270-200, WP009 01) | |
| 705 | N/A | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|--|
| 706 | Left Engine Oil Pressure High (Engine Instrument System) • Do table 2, (A1-F18AC-270-200, WP011 00) | Digital Display Indicator Caution line - L OIL PR Voice alert message - “Engine Left, Engine Left” |
| 707 | Left Engine Oil Pressure Low (Engine Instrument System) • Do table 1, (A1-F18AC-270-200, WP011 00) | Digital Display Indicator • Caution line - L OIL PR Voice alert message - “Engine Left, Engine Left” |
| 708 | N/A | |
| 709 | Left Engine Level 2 EGT Overtemp (Engine Instrument System) • Borescope inspect hot section, (A1-F18AC-270-300, WP060 00); then, do table 1, (A1-F18AC-270-200, WP007 00) | Digital Display Indicator • Caution line - L EGT HIGH Voice alert message - “Engine Left, Engine Left” |
| 710 | Left Engine Level 3 Fan Overspeed (Engine Instrument System) • When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies Level 3 fan overspeed, replace engine (A1-F18AC-270-300, WP003 00) • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify Level 3 fan overspeed, do table 4, (A1-F18AC-270-200, WP006 01) • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00) | Digital Display Indicator • Caution line - L OVRSPD • Automatic Left Engine shutdown Voice alert message - “Engine Left, Engine Left” |
| 711 | Left Engine Level 2 Fan Overspeed (Engine Instrument System) • Do table 1, (A1-F18AC-270-200, WP009 00) | Digital Display Indicator • Caution line - L OVRSPD • Automatic Left Engine shutdown Voice alert message - “Engine Left, Engine Left” |
| 712 | Left Engine Level 1 Fan Overspeed (Engine Instrument System) • Do table 1, (A1-F18AC-270-200, WP009 00) | |

Table 1. Maintenance Codes (Continued)

| <div style="border: 1px solid black; padding: 2px; display: inline-block;">11</div> | | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|--|--|--|
| 713 | | Left Engine Level 3 Compressor Overspeed (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies Level 3 compressor overspeed, replace engine, (A1-F18AC-270-300, WP003 00) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify Level 3 compressor overspeed, do table 5, (A1-F18AC-270-200, WP006 01) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OVRSPD Automatic Left Engine shutdown Voice alert message - "Engine Left, Engine Left" |
| 714 | | Left Engine Level 2 Compressor Overspeed (Engine Instrument System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-270-200, WP009 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L OVRSPD Automatic Left Engine shutdown Voice alert message - "Engine Left, Engine Left" |
| 715 | | Left Engine Level 1 Compressor Overspeed (Engine Instrument System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-270-200, WP009 00) | |
| 716 | | Left Engine Flameout (Engine Instrument System) <ul style="list-style-type: none"> When engine restarted, do table 4, (A1-F18AC-270-200, WP006 00) If engine did not restart, do table 3, (A1-F18AC-270-200, WP006 00) If engine flameout did not occur or was not evident, do table 3, (A1-F18AC-270-200, WP012 00) When abnormal engine operation was heard or observed, determine if combustible fluid was ingested. If combustible fluid was ingested, do table 7, (A1-F18AC-270-200, WP006 01) If nose wheelwell DDI did not display maintenance code when fire warning light pushbutton switch was used to shutdown engines, do throttle rigging procedure, (A1-F18AC-270-200, WP016 00 or WP017 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L FLAMEOUT Voice alert message - "Engine Left, Engine Left" |
| | | | Digital Display Indicator <ul style="list-style-type: none"> Caution line - no L FLAMEOUT caution |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 717 | N/A | |
| 718 | Left Engine Hung Stall (Engine Instrument System) <ul style="list-style-type: none"> Do table 6, (A1-F18AC-270-200, WP006 01) | Digital Display Indicator <ul style="list-style-type: none"> Caution Line - L STALL Voice alert message - "Engine Left, Engine Left" |
| 719 thru 729 | N/A | |
| 730 | Reserved L Eng thrust low | |
| 731 thru 751 | N/A | |
| 752 | Right Engine Level 3 EGT Overtemp (Engine Instrument System) <ul style="list-style-type: none"> When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies Level 3 overtemp (see figure 4, A1-F18AC-270-200, WP003 00), replace engine, (A1-F18AC-270-300, WP003 00) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify Level 3 overtemp, do table 1, (A1-F18AC-270-200, WP007 00) If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R EGT HIGH Voice alert message - "Engine Right, Engine Right" |
| 753 | Right Engine Fan Vibration High (Engine Instrument System) <ul style="list-style-type: none"> When no pilot confirmation, ignore If pilot felt vibrations, do table 1, (A1-F18AC-270-200, WP009 01) | |
| 754 | Right Engine Compressor Vibration High (Engine Instrument System) <ul style="list-style-type: none"> When no pilot confirmation, ignore If pilot felt vibrations, do table 1, (A1-F18AC-270-200, WP009 01) | |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------------|---|---|
| 755 | N/A | |
| 756 | Right Engine Oil Pressure High (Engine Instrument System) • Do table 2, (A1-F18AC-270-200, WP011 00) | Digital Display Indicator • Caution line - R OIL PR Voice alert message - "Engine Right, Engine Right" |
| 757 | Right Engine Oil Pressure Low (Engine Instrument System) • Do table 1, (A1-F18AC-270-200, WP011 00) | Digital Display Indicator • Caution line - R OIL PR Voice alert message - "Engine Right, Engine Right" |
| 758 | N/A | |
| 759 | Right Engine Level 2 EGT Overtemp (Engine Instrument System) • Borescope inspect hot section (A1-F18AC-270-300, WP060 00); then do table 1, (A1-F18AC-270-200, WP007 00) | Digital Display Indicator • Caution line - R EGT HIGH Voice alert message - "Engine Right, Engine Right" |
| 760 | Right Engine Level 3 Fan Overspeed (Engine Instrument System) • When IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 verifies Level 3 fan overspeed, replace engine (A1-F18AC-270-300, WP003 00) • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 does not verify Level 3 fan overspeed, do table 4, (A1-F18AC-270-200, WP006 01) • If IECMS data from Magnetic Tape Cartridge MX-9972/ASM-612 is not available, replace engine (A1-F18AC-270-300, WP003 00) | Digital Display Indicator • Caution line - R OVRSPD Automatic Right Engine shutdown Voice alert message - "Engine Right, Engine Right" |
| 761 | Right Engine Level 2 Fan Overspeed (Engine Instrument System) • Do table 1, (A1-F18AC-270-200, WP009 00) | Digital Display Indicator • Caution line - R OVRSPD Automatic Right Engine shutdown Voice alert message - "Engine Right, Engine Right" |
| 762 | Right Engine Level 1 Fan Overspeed (Engine Instrument System) • Do table 1, (A1-F18AC-270-200, WP009 00) | |

Table 1. Maintenance Codes (Continued)[illegible]

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 767 | N/A | |
| 768 | Right Engine Hung Stall (Engine Instrument System) <ul style="list-style-type: none"> Do table 6 (A1-F18AC-270-200, WP006 01) | Digital Display Indicator <ul style="list-style-type: none"> Caution Line - R STALL Voice alert message - "Engine Right, Engine Right" |
| 769 thru 779 | N/A | |
| 780 | Reserved R Eng thrust low | |
| 781 thru 799 | N/A | |
| 800 | APU Overspeed (Secondary Power System) <ul style="list-style-type: none"> Do ECU/APU test, (A1-F18AC-240-200, WP003 01) | APU auto shutdown |
| 801 | APU Overheat (Secondary Power Control System) <ul style="list-style-type: none"> Do ECU/APU test, (A1-F18AC-240-200, WP003 01) | APU auto shutdown |
| 802 | APU No Flame (Secondary Power Control System) <ul style="list-style-type: none"> When maintenance code 800, 801 or 804 also displayed, replace ECU (A1-F18AC-240-300, WP019 00) If maintenance code 805 also displayed, replace APU fuel shutoff valve (A1-F18AC-240-300, WP009 00) When ECU/APU tester is available, do ECU/APU Test, (A1-F18AC-240-200, WP003 01) If ECU/APU tester is not available, do table 1, (A1-F18AC-240-200, WP005 04) | APU light off and immediate shutdown |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|--|
| 803 | Reserved for APU start | |
| 804 | APU Start Period Timer Timed Out (Secondary Power System) <ul style="list-style-type: none"> • Be sure APU accumulator is properly charged, (A1-F18AC-PCM-000) Retry APU start, (A1-F18AC-LMM-000) • When APU starts, ignore • If APU does not start and ECU/APU tester is available, do ECU/APU Test, (A1-F18AC-240-200, WP003 01) • If APU does not start and ECU/APU tester is not available, do table 4, (A1-F18AC-240-200, WP006 00) | APU auto shutdown with no ready light |
| 805 | APU Fuel Shutoff Valve failed to open (Secondary Power System) <ul style="list-style-type: none"> • Replace APU fuel shutoff valve, (A1-F18AC-240-300, WP009 00) | |
| 806 thru 810 | N/A | |
| 811 | ACFT Overstress (Positive G Exceeded) <ul style="list-style-type: none"> • Do over g flight procedure, (A1-F18AC-LMM-030) | HUD Display <ul style="list-style-type: none"> • maximum normal acceleration indication |
| 812 | Magnetic Tape Cartridge MX-9972/ASM-612 Full Maintenance Starts Display and Recording System <ul style="list-style-type: none"> • Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00) | |
| 813 | Left Anti-ice fail (Basic Engine System) <ul style="list-style-type: none"> • Do table 1, (A1-F18AC-270-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - L HEAT |
| 814 | Right Anti-ice fail (Basic Engine System) <ul style="list-style-type: none"> • Do table 1, (A1-F18AC-270-200, WP010 00) | Digital Display Indicator <ul style="list-style-type: none"> • ADV - R HEAT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 815 | Inlet Ice Detector fail (Basic Engine System) <ul style="list-style-type: none"> When external electrical power was applied to aircraft before maintenance code was displayed, do Inlet Ice Detector Test, (A1-F18AC-270-200, WP020 00) If external electrical power was not applied to aircraft before maintenance code was displayed, replace Inlet Ice Detector, (A1-F18AC-270-300, WP098 00) | |
| 816 | Left AMAD Oil Pressure Low (Secondary Power System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-240-200, WP005 05) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L AMAD PR |
| 817 | Right AMAD Oil Pressure Low (Secondary Power System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-240-200, WP005 05) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R AMAD PR |
| 818 | Left ATSCV Open (Secondary Power System) <ul style="list-style-type: none"> Do table 5, (A1-F18AC-240-200, WP005 00) | |
| 819 | Right ATSCV Open (Secondary Power System) <ul style="list-style-type: none"> Do table 6, (A1-F18AC-240-200, WP005 00) | |
| 820 | ACS Temperature/Flow Controller fail (Environmental Control System) <ul style="list-style-type: none"> If maintenance code 820 displayed with any related indications, go to WP005 00, table 8, and work related fault descriptor. When related indications did not occur, do table 1, (A1-F18AC-410-200, WP092 00) | Ground power shutdown Digital Display Indicator <ul style="list-style-type: none"> Caution line - AV AIR HOT Cabin (cockpit) temperature not correct Vent suit temperature not correct |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 821 | Cabin Airflow/Temperature Sensor fail (Cabin Cooling and Defog System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-410-200, WP093 00) | Cabin (cockpit) airflow not correct Cabin airflow temperature not correct |
| 822 | Avionics Airflow/Temperature Sensor fail (Avionics Cooling System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-410-200, WP094 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - AV AIR HOT Cabin airflow no/low flow |
| 823 | Suit/Cabin Temperature Control fail (Cabin Cooling and Defog System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-410-200, WP095 00) | Cabin air temperature not correct Vent suit temperature not correct |
| 824 | System Supply Airflow Incorrect (Air Cycle Air Conditioning System) <ul style="list-style-type: none"> Do troubleshoot procedure, (A1-F18AC-410-200, WP149 00) | |
| 825 | Cabin Airflow Incorrect (Cabin Cooling and Defog System) <ul style="list-style-type: none"> Cabin Air no/low flow, (A1-F18AC-410-200, WP151 00) Cabin Airflow high, (A1-F18AC-410-200, WP150 00) Cyclic Cabin flow, (A1-F18AC-410-200, WP152 00) | |
| 826 | ECS Air Flow To Radar Liquid Cooling Air Flow Valve fail (Radar Liquid Cooling System) <ul style="list-style-type: none"> If maintenance code 843 also displayed, do troubleshooting procedure for code 843 (A1-F18AC-410-200, WP145 00) If code 843 is not also displayed, do table 1, (A1-F18AC-410-200, WP109 00) | |
| 827 | Cabin Temperature Incorrect (Cabin Cooling and Defog System) <ul style="list-style-type: none"> Cabin Air Temperature high, (A1-F18AC-410-200, WP153 00) Cabin Air too cold, (A1-F18AC-410-200, WP154 00) Cabin Temperature high, (A1-F18AC-410-300, WP058 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - AV AIR HOT |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 828 | Radar Liquid Coolant Temperature Sensor fail (Radar Liquid Cooling System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-410-200, WP110 00) | |
| 829 | ECS Delivery Air Temperature Incorrect (Air Cycle Air Conditioning System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-410-200, WP100 00) | |
| 830 | Vent Suit Temperature Sensor fail (Vent Suit System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-410-200, WP096 00) | |
| 831 | Bleed Air Leak or Bleed Air Leak Detection fail (Bleed Air System) <ul style="list-style-type: none"> Do troubleshooting procedure, (A1-F18AC-410-200, WP155 00) | |
| 832 | Primary Bleed Air Overpressure (Bleed Air System) <ul style="list-style-type: none"> If maintenance code 833 also displayed, do troubleshooting for code 833 If code 833 is not also displayed, do table 1, (A1-F18AC-410-200, WP101 00) | |
| 833 | Secondary Bleed Air Overpressure (Bleed Air System) <ul style="list-style-type: none"> Do troubleshooting procedure (A1-F18AC-410-200, WP156 00) | |
| 834 | Left Pitot Heat Circuit fail (Pitot Static System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-510-200, WP003 03) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L PITOT HT |
| 835 | Right Pitot Heat Circuit fail (Pitot Static System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-510-200, WP003 03) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R PITOT HT |
| 836 | Left Avionics Cooling Fan Overheat (Cabin Cooling and Defog System) <ul style="list-style-type: none"> Do troubleshooting procedure, (A1-F18AC-410-200, WP173 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|-------------------------------------|
| 837 | Right Avionics Cooling Fan Overheat (Cabin Cooling and Defog System) <ul style="list-style-type: none"> • Do troubleshooting procedure, (A1-F18AC-410-200, WP174 00) | |
| 838 thru 839 | N/A | |
| 840 | Radar Liquid Cooling System Filter Overpressure (Radar Liquid Cooling System) <ul style="list-style-type: none"> • When ΔP indicator not extended, do table 1, (A1-F18AC-410-200, WP091 00) • If ΔP indicator extended, replace filter element (A1-F18AC-410-300, WP124 00) | |
| 841 | Radar Liquid Cooling System Pressure Low (Radar Liquid Cooling System) <ul style="list-style-type: none"> • Do troubleshooting procedure, (A1-F18AC-410-200, WP143 00) | |
| 842 | Radar Liquid Cooling System Heat Exchanger or Fan fail (Radar Liquid Cooling System) <ul style="list-style-type: none"> • If RLCS door closed and weight on wheels, do troubleshooting procedure, (A1-F18AC-410-200, WP144 00) • If RLCS door open and weight on wheels, do troubleshooting procedure, (A1-F18AC-410-200, WP025 00) | |
| 843 | Radar Liquid Cooling System Door Operation fail (Radar Liquid Cooling System) <ul style="list-style-type: none"> • Do troubleshooting procedure, (A1-F18AC-410-200, WP145 00) | |
| 844 | Radar Liquid Cooling System Temperature High (Radar Liquid Cooling System) <ul style="list-style-type: none"> • Do troubleshooting procedure, (A1-F18AC-410-200, WP148 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 845 | Cabin Exit Air Controller fail (Avionics Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure, (A1-F18AC-410-200, WP086 00) | |
| 846 | Cabin Exit Air Valve fail (Avionics Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure, (A1-F18AC-410-200, WP087 00) | |
| 847 | Cabin Exit Air Pressure Low (Avionics Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure, (A1-F18AC-410-200, WP088 00) | |
| 848 | Avionic Undercool Warning Temperature Sensor fail (Avionic Cooling System) <ul style="list-style-type: none"> Do troubleshooting procedure, (A1-F18AC-410-200, WP114 00) | |
| 849 thru 869 | N/A | |
| 870 | Left Generator fail (AC Power System) <ul style="list-style-type: none"> Replace Left Generator, (A1-F18AC-420-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L GEN Caution Light Indicator Panel <ul style="list-style-type: none"> L GEN Caution light - on |
| 871 | Right Generator fail (AC Power System) <ul style="list-style-type: none"> Replace Right Generator, (A1-F18AC-420-300, WP003 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R GEN Caution Light Indicator Panel <ul style="list-style-type: none"> R GEN Caution light - on |
| 872 | Left Power Contactor fail (AC Power System) <ul style="list-style-type: none"> If maintenance codes 870 and 872 displayed, replace Left Generator, (A1-F18AC-420-300, WP003 00) If codes 870 and 872 not displayed, do table 1, (A1-F18AC-420-200, WP003 06) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - L GEN Caution Light Indicator Panel <ul style="list-style-type: none"> L GEN Caution light - on |

Table 1. Maintenance Codes (Continued)

| Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|---|
| 873 | Right Power Contactor fail (AC Power System) <ul style="list-style-type: none"> If maintenance codes 873 and 871 also displayed, replace Right Generator, (A1-F18AC-420-300, WP003 00) If codes 871 and 873 not also displayed, do table 2, (A1-F18AC-420-200, WP003 06) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - R GEN Caution Light Indicator <ul style="list-style-type: none"> Panel R GEN Caution light - on |
| 874 thru 883 | N/A | |
| 884 | Ground Power Circuit fail (Power Distribution System) | |
| NOTE | | |
| A false maintenance code 884 exists when any GND PWR switch on GND PWR control panel assembly is set to ON with an engine-driven generator on line. | | |
| 885 | Do troubleshooting procedure, (A1-F18AC-420-200, WP006 00) | |
| 886 thru 887 | Battery Relay Control Unit Circuit fail (DC Power System) <ul style="list-style-type: none"> Do DC Power System Test, (A1-F18AC-420-200, WP004 00) | |
| 888 | N/A | |
| 889 | Test Value | |
| 889 | Canopy Switches Disagree (Canopy System) <ul style="list-style-type: none"> On F/A-18A, do table 1, (A1-F18AC-120-200, WP011 00) | Digital Display Indicator <ul style="list-style-type: none"> Caution line - CANOPY |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 890 (G) | Right MLG WOW Switch fail (Landing Gear System) <ul style="list-style-type: none"> If maintenance codes 890, 195 and FCS BLIN code 100 displayed, replace Right MLG Weight On Wheels (WOW) switch, (A1-F18AC-130-300, WP014 00) If related codes above are not displayed, do table 1, (A1-F18AC-130-200, WP007 17) | LDG GEAR Control Handle <ul style="list-style-type: none"> Could not be set to UP without pressing DOWN LOCK ORIDE |
| 891 (G) | Left MLG WOW Switch fail (Landing Gear System) <ul style="list-style-type: none"> If maintenance codes 891, 195 and FCS BLIN code 077 displayed, replace Left MLG Weight On Wheels (WOW) switch, (A1-F18AC-130-300, WP014 00) If related codes above are not displayed, do table 2, (A1-F18AC-130-200, WP007 17) | LDG GEAR Control Handle <ul style="list-style-type: none"> Could not be set to UP without pressing DOWN LOCK ORIDE |
| 892 (G) | NLG WOW Switch fail (Landing Gear System) <ul style="list-style-type: none"> If maintenance codes 892, 195 and FCS BLIN code 076 displayed, replace NLG Weight On Wheels (WOW) switch, (A1-F18AC-130-300, WP015 00) If codes above are not displayed, do table 3, (A1-F18AC-130-200, WP007 17) | LDG GEAR Control Handle <ul style="list-style-type: none"> Could not be set to UP without pressing DOWN LOCK ORIDE Nose Landing Gear <ul style="list-style-type: none"> Does not retract |
| 893 (G) | Right MLG Downlock Switch fail (Landing Gear System) <ul style="list-style-type: none"> If maintenance codes 075 displayed, replace Right MLG Downlock Switch, (A1-F18AC-130-300, WP012 00) If codes above are not displayed, do table 1, (A1-F18AC-130-200, WP007 20) | LDG GEAR Control Handle <ul style="list-style-type: none"> Red light Flaps, Landing Gear and Stores Indicator panel <ul style="list-style-type: none"> RIGHT downlock light does not agree with R MLG position |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 894 (G) | Left MLG Downlock Switch fail (Landing Gear System) <ul style="list-style-type: none"> If maintenance codes 894, 195 and FCS BLIN code 074 displayed, replace Left MLG Downlock Switch, (A1-F18AC-130-300, WP012 00) If codes above are not displayed, do table 2, (A1-F18AC-130-200, WP007 19) | LDG GEAR Control Handle <ul style="list-style-type: none"> Red light Flaps, Landing Gear and Stores Indicator panel <ul style="list-style-type: none"> LEFT downlock light does not agree with L MLG position |
| 895 (G) | NLG Downlock Switch fail (Landing Gear System) <ul style="list-style-type: none"> If maintenance codes 895, 195 and FCS BLIN code 073 displayed, replace NLG Downlock Switch, (A1-F18AC-130-300, WP013 00) If codes above are not displayed, do table 3, (A1-F18AC-130-200, WP007 19) | LDG GEAR Control Handle <ul style="list-style-type: none"> Red light Flaps, Landing Gear and Stores Indicator panel <ul style="list-style-type: none"> NOSE downlock light does not agree with NLG position |
| 896 (G) | <div>6</div> Right MLG Uplock Switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-130-200, WP007 22) | LDG GEAR Control Handle <ul style="list-style-type: none"> Red light Audible thumping |
| 897 (G) | <div>6</div> Left MLG Uplock Switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-130-200, WP007 22) | LDG GEAR Control Handle <ul style="list-style-type: none"> Red light Audible thumping |
| 898 (G) | <div>6</div> NLG Uplock Switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-130-200, WP007 22) | LDG GEAR Control Handle <ul style="list-style-type: none"> Red light Audible thumping |
| 899 (G) | <div>6</div> Launch Bar Retract Proximity Switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-130-200, WP011 06) | LH Advisory and Threat Warning Indicator Panel <ul style="list-style-type: none"> LAUNCH BAR warning light - on Nose Landing Gear does not retract. |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|---|--|
| 900 (G) | Landing Gear Control Unit Emergency Power fail (Landing Gear System) <ul style="list-style-type: none"> Do table 3, (A1-F18AC-130-200, WP007 25) | |
| 901 (G) | Left MLG Planing Link Proximity Switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 1, (A1-F18AC-130-200, WP007 25) | |
| 902 (G) | Right MLG Planing Link Proximity Switch fail (Landing Gear System) <ul style="list-style-type: none"> Do table 2, (A1-F18AC-130-200, WP007 25) | |
| 903 | Hard Landing Data (Landing Gear System) <ul style="list-style-type: none"> Do Hard Landing Evaluation, (A1-F18AC-LMM-030, WP004 00) | |
| 904 | Hard Landing Inspection (Landing Gear System) <ul style="list-style-type: none"> Do Hard Landing Evaluation, (A1-F18AC-LMM-030, WP004 00) | |
| 905 | Skid Control Box Assembly fail (Wheel Brake and Anti Skid System) When maintenance codes 906, 907 and 908 also displayed, do substeps below: | Digital Display Indicator <ul style="list-style-type: none"> Caution line - ANTI SKID |
| <div> NOTE <p>For component locator, refer to A1-F18AC-130-500, WP008 00. Refer to A1-F18AC-LMM-000 for the substeps below.</p> <ol style="list-style-type: none"> Turn off electrical power Set EMERG PARK BRK control to ON On LH vertical console control panel, make sure Anti Skid switch is off Do Nose Wheelwell DDI Built-In Test RESET procedure On GND PWR control panel, make sure GND PWR 1 switch is set to AUTO </div> | | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| <p>906</p> | <p>6. On GND PWR control panel, set and hold GND PWR 3 switch to B ON for 3 seconds</p> <p>7. On LH vertical console control panel, set Anti Skid switch to ON</p> <p>8. If maintenance codes 905, 906, 907 and 908 do not repeat on nose wheelwell DDI, anti skid system is operating normally</p> <p>9. If maintenance codes 905, 906, 907 and 908 repeat, do table 1, (A1-F18AC-130-200, WP008 10)</p> <p>If maintenance code 907 or 908 also displayed, do table 1, (A1-F18AC-130-200, WP008 10)</p> <p>Skid Control System Valve fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> • If maintenance code 905, 907, and/or 908 also displayed, do maintenance action for maintenance code 905 • If codes above are not displayed, do table 1, (A1-F18AC-130-200, WP008 12) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • Caution line - ANTI SKID |
| <p>907</p> | <p>Left Motion Pickup Transducer fail (Wheel Brake and Anti Skid System)</p> <ul style="list-style-type: none"> • If maintenance code 905, 906, or 908 also displayed, do maintenance action for maintenance code 905 • If maintenance codes 905 and 908 also displayed in any combination, do table 1, (A1-F18AC-130-200, WP008 09) • If related codes above are not displayed, do table 2, (A1-F18AC-130-200, WP008 12) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> • Caution line - ANTI SKID |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|--|---|
| 908 | Right Motion Pickup Transducer fail (Wheel Brake and Anti Skid System) <ul style="list-style-type: none"> • If maintenance code 905, 906, and 907 also displayed, do maintenance action for maintenance code 905 • If maintenance codes 905 and 907 also displayed in any combination, do table 1, (A1-F18AC-130-200, WP008 09) • If related codes above are not displayed, do table 3, (A1-F18AC-130-200, WP008 12) | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - ANTI SKID |
| 909 | N/A | |
| 910 (A) | Right MLG Uplock Did Not Occur (Landing Gear System) <ul style="list-style-type: none"> • If maintenance code 896 displayed, replace right MLG uplock switch, (A1-F18AC-130-300, WP016 00) • If code 838 not displayed, (A1-F18AC-130-200, WP016 00) | LDG GEAR Control Handle <ul style="list-style-type: none"> • Red light Audible thumping. |
| 911 (A) | Left MLG Uplock Did Not Occur (Landing Gear System) <ul style="list-style-type: none"> • If maintenance code 897 displayed, replace left MLG uplock switch, (A1-F18AC-130-300, WP016 00) • If code 897 not displayed, (A1-F18AC-130-200, WP016 00) | LDG GEAR Control Handle <ul style="list-style-type: none"> • Red light Audible thumping |
| 912 (A) | NLG Uplock Did Not Occur (Landing Gear System) <ul style="list-style-type: none"> • If maintenance code 898 displayed, replace NLG uplock switch, (A1-F18AC-130-300, WP017 00) • If code 898 is not displayed (A1-F18AC-130-200, WP017 00) | LDC GEAR Control Handle <ul style="list-style-type: none"> • Red light Audible thumping |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 913 thru 914 | N/A | |
| 915 (G) | Landing Gear Control Unit fail (Landing Gear System) <ul style="list-style-type: none"> Do table 4, (A1-F18AC-134-200, WP007 25) | |
| 916 (A) | Arresting Gear Damper Pressure Low (Arresting Gear System) <ul style="list-style-type: none"> Service Arresting Hook Actuator, (A1-F18AC-LMM-000) If servicing procedure indicates servicing not required, do table 1, (A1-F18AC-130-200, WP010 05) | |
| 917 thru 924 | N/A | |
| 925 | Negative G Exceeded <ul style="list-style-type: none"> Do Over G Flight Evaluation, Negative and Positive (A1-F18AC-LMM-030, WP007 00) | |
| 926 | Strain Recording Terminated (Maintenance Status Display and Recording System) <ul style="list-style-type: none"> When maintenance code 926 displayed with or without any maintenance code 600, 601, 602, 603, 604, 605, or 606 displayed, do table 4, (A1-F18AC-580-200, WP006 00) | Digital Display Indicator <ul style="list-style-type: none"> ADV - BIT SDC BIT status message - DEGD Caution line - CAUT DEGD Signal Data Converter CV-3493/ASM-612 <ul style="list-style-type: none"> Fault Indicator latched (black and white) |
| 927 | G - LIM Function Overridden <ul style="list-style-type: none"> No maintenance action required | Digital Display Indicator <ul style="list-style-type: none"> Caution Line - G - LIM OVRD |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 928 thru 940 | Spare Spare | |
| 941 | Fuel dump open when commanded closed (Internal Fuel Transfer System) <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-460-200, WP022 02) | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - DUMP OPEN |
| 942 | Right fuel shutoff valve closed (Internal Fuel Transfer System) <ul style="list-style-type: none"> • If an abnormal or inadvertent engine shutdown occurred using FIRE button on RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> 1. Reset FIRE button. 2. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000) 3. Turn on electrical power (A1-F18AC-LMM-000) If code does not reappear, stop troubleshooting <ul style="list-style-type: none"> • If code 942 still displayed, do table 9 (A1-F18AC-460-200, WP012 07) | |
| 943 | Left fuel shutoff valve closed (Internal Fuel Transfer System) <ul style="list-style-type: none"> • If an abnormal or inadvertent engine shutdown occurred using FIRE button on LH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> 1. Reset FIRE button 2. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000) 3. Turn on electrical power (A1-F18AC-LMM-000) If code does not reappear, stop troubleshooting <ul style="list-style-type: none"> • If code 943 still displayed, do table 10, (A1-F18AC-460-200, WP012 07) | |

Table 1. Maintenance Codes (Continued)


|  Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---|--|--|
| 944 | <p>Left or right fuel boost low with crossfeed valve closed Left or right shutoff valves closed with crossfeed valve open Left and right fuel boost high with crossfeed valve open (Engine Fuel Supply System)</p> <ul style="list-style-type: none"> If an abnormal or inadvertent engine(s) shutdown occurred using FIRE button(s) on LH/RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> Reset FIRE button Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000) Turn on electrical power (A1-F18AC-LMM-000) <p>If code does not reappear, stop troubleshooting</p> <ul style="list-style-type: none"> If code 944, do table 11 (A1-F18AC-460-200, WP012 07) Code 944 not displayed Crossfeed valve closed (Engine Fuel Supply System) If an abnormal or inadvertent engine(s) shutdown occurred using FIRE button(s) on LH/RH advisory and threat warning indicator panel, do the steps below: <ol style="list-style-type: none"> Reset FIRE button. Reset Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-LMM-000) Turn on electrical power (A1-F18AC-LMM-000) <p>If code reappears, stop troubleshooting</p> <ul style="list-style-type: none"> If code not displayed, do table 12 (A1-F18AC-460-200, WP012 07) | <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Caution line - L or R BOOST <p>Digital Display Indicator</p> <ul style="list-style-type: none"> Code 942 Code 943 |
| | | Feed tank imbalance |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|---|
| 945 | Tank 3 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> • If any one, or combination of, 946, 947 or 948 codes are displayed with code 945, do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00) • If single 945 code is displayed, do No. 3 Fuel Tank Cycle Test (A1-F18AC-460-200, WP012 05) | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - FUEL LO |
| 946 | Tank 2 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> • If any one, or combination of, 945, 947 or 948 codes are displayed with 946, do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00) • If single 946 code is displayed, do No. 2 Fuel Tank Cycle Test (A1-F18AC-460-200, WP012 04) | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - FUEL LO |
| 947 | Tank 4 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> • If any one, or combination of, 945, 946 or 948 codes are displayed with code 947 do Internal Fuel Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00) • If single 947 code is displayed, do tables in order listed below until malfunction has been isolated <ol style="list-style-type: none"> a. Transfer Leak Test (A1-F18AC-460-200, WP012 02) b. No. 4 Fuel Tank Transfer Test (A1-F18AC-460-200, WP012 06) | Digital Display Indicator <ul style="list-style-type: none"> • Caution line - CG • Caution line - FUEL LO |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| 948 | Tank 1 failure (Internal Fuel Transfer System) <ul style="list-style-type: none"> • If any one, or combination of, 945, 946, or 947 codes are displayed with code 948 do Internal Fuel Transfer and Engine Fuel Supply System (A1-F18AC-460-200, WP012 00) • If single 948 code is displayed, do tables in order listed below until malfunction has been isolated <ol style="list-style-type: none"> a. Transfer Leak Test (A1-F18AC-160-200, WP012 02) b. No. 1 Fuel Tank Transfer Test (A1-F18AC-460-200, WP012 03) c. CG System Test (A1-F18AC-460-200, WP035 00) | Digital Display Indicator Caution line - FUEL LO |
| 949 | N/A | |
| 950 | N/A | |
| 951 | Fuel external tank overpressure (External Fuel System) <ul style="list-style-type: none"> • Do table 1 (A1-F18AC-460-200, WP010 00). | |
| 952 thru 979 | N/A | |
| 980 (F) | Left Engine Oil Level Low (Basic Engine System) <ul style="list-style-type: none"> • Use Engine Oil sight gage to determine Engine Oil Level. When Oil Level Low, service Left Engine Oil System, (A1-F18AC-PCM-000) • If maintenance code displayed after servicing, do table 6, (A1-F18AC-270-200, WP011 00) | |
| 981 (F) | Right Engine Oil Level Low (Basic Engine System) <ul style="list-style-type: none"> • Use Engine Oil sight gage to determine Engine Oil Level. When Oil Level Low, service Right Engine Oil System, (A1-F18AC-PCM-000) • If maintenance code displayed after servicing, do table 6, (A1-F18AC-270-200, WP011 00) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|--|--|-------------------------------------|
| 982 (F) | Left AMAD Oil Level Low (Secondary Power System) <ul style="list-style-type: none"> • When Left AMAD Oil Level indicator (door 53L) indicates Oil Level Low, service AMAD Oil System, (A1-F18AC-PCM-000) • If Left AMAD Oil Level indicator (door 53L) does not indicate Oil Level Low, do table 1, (A1-F18AC-240-200, WP005 07) | |
| 983 (F) | Right AMAD Oil Level Low (Secondary Power System) <ul style="list-style-type: none"> • When Right AMAD Oil Level indicator (door 53R) indicates Oil Level Low, service AMAD Oil system, (A1-F18AC-PCM-000) • If Right AMAD Oil Level indicator (door 53R) does not indicate Oil Level Low, do table 2, (A1-F18AC-240-200, WP005 07) | |
| 984 (F) | Auxiliary Power Unit Oil Level Low (Secondary Power System) | |
| <div>CAUTION</div> | | |
| Do not operate APU when maintenance code 984 exists. | | |
| | When Auxiliary Power Unit (APU) Oil Level sight gage (door 52) indicates APU Oil Level Low, service APU Oil System, (A1-F18AC-PCM-000) If APU Oil Level sight gage (door 52) does not indicate APU Oil Level Low, do table 7 (A1-F18AC-240-200, WP005 00) | |
| 985 (F) | Radar Liquid Cooling System Liquid Level Low (Radar Liquid Cooling System) | |

Table 1. Maintenance Codes (Continued)



| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|--------------------------------------|---|---|
| 986 thru 987 988 (F) | <div style="text-align: center;">  </div> <p>Do not operate radar when maintenance code 985 exists.</p> <p>When maintenance code 985 exists and Radar Liquid Coolant was ingested into engine intake, engine must be water washed (A1-F18AC-LMM-000) and Borescope-Hot Section procedure done (A1-F18AC-270-300, WP060 00).</p> <p>When RDR LCS SVCS RESERVOIR LEVEL indicator (door 6) is white (level low), service Radar Liquid Cooling System, (A1-F18AC-LMM-000)</p> <p>If RDR LCS SVCS RESERVOIR LEVEL indicator (door 6) is black (level full), do troubleshooting procedure, (A1-F18AC-410-200, WP172 00)</p> <p>NA</p> <p>Fire Extinguisher Low (Fire Extinguishing System)</p> | |
| | <div style="text-align: center;">  </div> <p>Do not start APU or engines when this maintenance code exists.</p> <p>Replace Fire Extinguisher tank, (A1-F18AC-240-300, WP032 00) Do test for fluids low maintenance codes, (A1-F18AC-PCM-000)</p> <p>If maintenance code repeats after replacing Fire Extinguisher tank, do table 6, (A1-F18AC-240-200, WP009 00)</p> <p>Spare</p> | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|---|---|
| 995 (F) | Fluids test complete | Digital Display Indicator • Caution line - OXY LO |
| 996 | LOX Low (40%) (Oxygen System) • Liquid Oxygen Quantity Indicator GMU-75/A indicates Liquid Oxygen is less than 4 liters, service Liquid Oxygen converter, (A1-F18AC-LMM-000) • Liquid Oxygen Quantity Indicator GMU-75/A indicates Liquid Oxygen is greater than 4 liters, troubleshoot using Oxygen System Schematic, (A1-F18AC-410-500, WP016 00) | Digital Display Indicator • Caution line - OXY LO |
| 997 | Hydraulic System 1 Oil Level Low (Hydraulic System) • Hydraulic reservoir gage indicates Oil Level is low, service Hydraulic System 1 reservoir, (A1-F18AC-PCM-000) • Hydraulic reservoir gage indicates FULL, troubleshoot using Hydraulic System Schematic, (A1-F18AC-450-500, WP003 00) | Digital Display Indicator • Caution line - HYD 1A • Caution line - HYD 1B |
| 998 | Hydraulic System 2 Oil Level Low (Hydraulic System) • Hydraulic reservoir gage indicates Oil Level Is low, service Hydraulic System 2 reservoir, (A1-F18AC-PCM-000) • Hydraulic reservoir gage indicates FULL, troubleshoot using Hydraulic System Schematic, (A1-F18AC-450-500, WP003 00) | Digital Display Indicator • Caution line - HYD 2A • Caution line - HYD 2B |
| 999 | Hydraulic System Fluid Level NABIT Not Done (Hydraulic System) • If maintenance code 997 or 998 displayed, ignore • Determine if Hydraulic System requires service, (A1-F18AC-PCM-000) | |

Table 1. Maintenance Codes (Continued)

| <div>11</div> Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|---------------------------|---|--|
| C01 | Mission Data Loader (Flight Incident and Recording System) <ul style="list-style-type: none"> Do manual erase, table 2, (A1-F18AC-580-200, WP003 00) Do Nose Wheelwell DDI Built-In Test Reset procedure, (A1-F18AC-LMM-000) If manual erase is not successful or maintenance code repeats, replace Memory Unit (A1-F18AC-580-300, WP005 00) and safeguard as instructed | Digital Display Indicator <ul style="list-style-type: none"> ADV - C DATA MUMI display status line - FAILED |
| C02 | Digital Data Computer 1 Classified (Digital Data Computer System) <ul style="list-style-type: none"> Do manual erase, table 2, (A1-F18AC-580-200, WP003 00) Do Nose Wheelwell DDI Built-In Test Reset procedure, (A1-F18AC-LMM-000) If manual erase is not successful or maintenance code repeats, replace Digital Data Computer 1 (A1-F18AC-741-300, WP003 00) and safeguard as instructed | Digital Display Indicator <ul style="list-style-type: none"> ADV - C DATA MUMI display status line - FAILED |
| C03 | Digital Data Computer 2 Classified (Digital Data Computer System) <ul style="list-style-type: none"> Do manual erase, table 2, (A1-F18AC-580-200, WP003 00) Do Nose Wheelwell DDI Built-In Test Reset procedure, (A1-F18AC-LMM-000) If manual erase is not successful or maintenance code repeats, replace Digital Data Computer 2 (A1-F18AC-741-300, WP004 00) and safeguard as instructed | Digital Display Indicator <ul style="list-style-type: none"> ADV - C DATA MUMI display status lines - FAILED |

Table 1. Maintenance Codes (Continued)

| 11 Code | Malfunction (System) Maintenance Action | Possible Related Indications |
|------------|---|---|
| C04 | Stores Management Processor Classified (Stores Management System) <ul style="list-style-type: none"> Do manual erase, table 2, (A1-F18AC-580-200, WP003 00) Do Nose Wheelwell DDI Built-In Test Reset procedure, (A1-F18AC-LMM-000) If manual erase is not successful or maintenance code repeats, replace Armament Computer (A1-F18AC-740-300, WP006 00) and safeguard as instructed | Digital Display Indicator <ul style="list-style-type: none"> ADV - C DATA MUMI display status line - FAILED |
| C05 | Stores Management Processor Classified (Stores Management System) <ul style="list-style-type: none"> Do manual erase, table 2, (A1-F18AC-580-200, WP003 00) Do Nose Wheelwell DDI Built-In Test Reset procedure, (A1-F18AC-LMM-000) If manual erase is not successful or maintenance code repeats, replace Armament Computer (A1-F18AC-740-300, WP006 00) (A1-F18AC-740-300, WP003 00) and safeguard as instructed | Digital Display Indicator <ul style="list-style-type: none"> ADV - C DATA MUM display status line - FAILED |

LEGEND

1 VALID ONLY WHEN DONE WITH AMAD NOT ROTATING AND WITHIN 15 MINUTES AFTER AMAD SHUTDOWN, IGNORE MAINTENANCE CODES 982 AND 983 AT ALL OTHER TIMES.

2 WHEN COMBINATION OF TWO OR MORE AVIONIC MUX BUS 1 MAINTENANCE CODES EXIST (001, 002, 004, 006, 014, 015, 017, 018, 029, AND 030), MALFUNCTION MAY BE AVIONIC MUX WIRING. IF MC1 DISPLAYED ON DDI CAUTION LINE, DO TROUBLESHOOTING, A1-F18AC-741-200, WP003 00. IF MC1 CAUTION NOT DISPLAYED, REFER TO TABLE 2 FOR MAINTENANCE ACTION. IF ABOVE COMBINATION OF MAINTENANCE CODES DOES NOT APPEAR IN TABLE 2, DO TABLE 1 MAINTENANCE ACTION FOR EACH MAINTENANCE CODE.

Table 1. Maintenance Codes (Continued)

| <div>11</div> <div>Code</div> | <div>Malfunction (System)</div> <div>Maintenance Action</div> | <div>Possible Related Indications</div> |
|-------------------------------|--|---|
| <div>3</div> | <p>WHEN COMBINATION OF TWO OR MORE AVIONIC MUX BUS 2 MAINTENANCE CODES EXIST (005, 007, 010, 009/012, 016, 019, 020, 025, 026, 027, AND 029), MALFUNCTION MAY BE AVIONIC MUX WIRING. BEFORE TROUBLESHOOTING DIGITAL DATA COMPUTER 1 AND/OR DIGITAL DATA COMPUTER 2 CAUTIONS, MAKE SURE ELECTRICAL EQUIPMENT RACK</p> <p>AFTER F/A-18 AFC 253 MT-4955/APG-65 (A1-F18AC-742-300, WP014 00)</p> <p>AFTER F/A-18 AFC 292 MT-6809/APG-73 (A1-F18AH-742-300, WP014 00)</p> <p>IS NOT REMOVED FROM THE AIRCRAFT OR CONNECTORS DISCONNECTED. IF MC1 DISPLAYED ON DDI CAUTION LINE, DO TROUBLESHOOTING, A1-F18AC-741-200, WP003 00. IF MC1 CAUTION NOT DISPLAYED, REFER TO TABLE 3 FOR MAINTENANCE ACTION. IF ABOVE COMBINATION OF MAINTENANCE CODES DOES NOT APPEAR IN TABLE 3, DO TABLE 1 MAINTENANCE ACTION FOR EACH MAINTENANCE CODE.</p> | |
| <div>4</div> | <p>WHEN COMBINATION OF TWO OR MORE AVIONIC MUX BUS 4 MAINTENANCE CODES EXIST (008 AND 029), MALFUNCTION MAY BE AVIONIC MUX WIRING. IF MC1 DISPLAYED ON DDI CAUTION LINE, DO TROUBLESHOOTING, A1-F18AC-741-200, WP003 00. IF MC1 CAUTION IS NOT DISPLAYED, TROUBLESHOOT USING AVIONIC MUX CHANNEL 4 SCHEMATIC (A1-F18AC-741-500, WP017 00).</p> | |
| <div>5</div> | <p>WHEN COMBINATION OF TWO OR MORE AVIONIC MUX BUS 5 MAINTENANCE CODES EXIST (003, 011, 013, 029; AND ON 165222 AND UP, 011), MALFUNCTION MAY BE AVIONIC MUX WIRING. IF MC1 DISPLAYED ON DDI CAUTION LINE, DO TROUBLESHOOTING, A1-F18AC-741-200, WP 003 00. IF MC1 CAUTION IS NOT DISPLAYED, TROUBLESHOOT USING AVIONIC MUX CHANNEL 5 SCHEMATIC (A1-F18AC-741-500, WP018 00).</p> | |
| <div>6</div> | <p>WHEN MAINTENANCE CODES 896, 897, 898, AND 899 ARE DISPLAYED TOGETHER, DO NOSE WHEELWELL DDI BUILT-IN TEST RESET (A1-F18AC-LMM-000). CYCLE ELECTRICAL POWER OFF AND ON (A1-F18AC-LMM-000). ON GND PWR CONTROL PANEL, SET 1 SWITCH TO A ON. IF MAINTENANCE CODES DO NOT REPEAT, IGNORE. IF MAINTENANCE CODES REPEAT TOGETHER OR SEPARATELY, DO RECOMMENDED MAINTENANCE ACTION.</p> | |
| <div>7</div> | <p>AFTER F/A-18 AFC 253.</p> | |
| <div>8</div> | <p>AFTER F/A-18 AFC 292.</p> | |
| <div>9</div> | <p>WHEN COMBINATION OF TWO OR MORE AVIONIC MUX BUS 6 MAINTENANCE CODES EXIST (002 AND 029). MALFUNCTION MAY BE AVIONIC MUX WIRING. IF MC1 DISPLAYED ON DDI CAUTION LINE, DO TROUBLESHOOTING, (A1-F18AC-741-200, WP003 00). IF MC1 CAUTION IS NOT DISPLAYED, TROUBLESHOOT USING AVIONIC MUX CHANNEL 6 SCHEMATIC (A1-F18AC-741-500, WP019 00).</p> | |
| <div>10</div> | <p>IF MORE THAN ONE ALR-67 CODE EXISTS DO BIT (A1-F18AC-760-200, WP031 00).</p> | |
| <div>11</div> | <p>162394 thru 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |
| <div>12</div> | <p>AFTER F/A-18 AFC 231 PART 2 OR PART 3</p> | |

Table 2. Avionic Mux Bus 1 Fail Troubleshooting

| <div> <div>2</div> <div>3</div> <div>4</div> </div> Maintenance Code (Maintenance code is set only if the terminal is installed and has been turned on. Analyze failed terminal codes, effectivities, equipment operation, and equipment not installed when determining multiple code failures) | | | | | | | | | | Maintenance Action |
|--|------------------------------|------------------------------|------------------------------------|------------------------------------|--|------------------------------|------------------------------|------------------------------|------------------------------------|--|
| 029 M C 1 | 006 S M S | 030 S D C | 015 F C C B | 014 F C C A | 018 C O M M 1 | 004 C S C | 017 C L C | 001 A D C | 002 L D D 1 | |
| X | X | X | | | | | | | | Do Table 1, (A1-F18AC-741-200, WP009 00) |
| X | X | X | X | | | | | | | Do Table 1, (A1-F18AC-741-240, WP010 00) |
| X | X | X | X | X | X | X | X | X | | Do Table 1, (A1-F18AC-741-200, WP011 00) |
| X | X | X | X | X | X | X | X | X | X | Do Table 1, (A1-F18AC-741-200, WP012 00) |

Table 3. Avionic Mux Bus 2 Fail Troubleshooting

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

WARNING, CAUTION, ADVISORY, AND FAULT INDICATIONS

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| AOA Indexer Assembly Indications, Figure 26 | 52 |
| APU Control Panel Assembly Indications, Figure 22 | 45 |
| Arresting Hook Control Indications, Figure 20 | 42 |
| Caution Light Indicator Panel Indications, Figure 27 | 53 |
| Cockpit WRA Fault Indicators, Figure 3 | 9 |
| Digital Display Indicator Caution/Advisory Indications, Figure 28 | 56 |
| Door 1 WRA Fault Indicators, Figure 4 | 14 |
| Door 3 WRA Fault Indicators, Figure 5 | 16 |
| Door 6 WRA Fault Indicators, Figure 6 | 18 |
| Door 10R WRA Fault Indicators, Figure 7 | 19 |
| Door 13L WRA Fault Indicators, Figure 8 | 20 |
| Door 13R WRA Fault Indicators, Figure 9 | 23 |
| Door 14R WRA Fault Indicators, Figure 10 | 25 |
| Door 32R WRA Fault Indicators, Figure 11 | 27 |
| Door 46L WRA Fault Indicators, Figure 12 | 28 |
| Door 159L/R WRA Fault Indicators, Figure 13 | 31 |
| Fault Indicators Location, Figure 1 | 6 |
| Flaps, Landing Gear and Stores Indicator Panel Indications, Figure 24 | 48 |
| Height Indicator ID-2163/A Indications, Figure 21 | 43 |
| Introduction | 2 |
| Laser Detector Tracker and Strike Camera Systems (LDT/CAM) Fault Indicators, Figure 29 | 69 |
| LDG Gear Control Indications, Figure 23 | 46 |
| LH Advisory and Threat Warning Indicator Panel Indications, Figure 17 | 36 |
| Lock/Shoot Light Assembly Indications, Figure 19 | 41 |
| L/R MLG Wheelwell WRA Fault Indicators, Figure 15 | 34 |
| L/R Wing Pylons WRA Fault Indicators, Figure 16 | 35 |
| Master Arm Control Panel Assembly Indications, Figure 25 | 50 |
| Nose Wheelwell WRA Fault Indicators, Figure 14 | 32 |
| Rear Advisory and Threat Warning Indicator Panel Indications, Figure 30 | 71 |
| RH Advisory and Threat Warning Indicator Panel Indications, Figure 18 | 39 |
| Voice Alert Messages, Table 1 | 2 |
| Warning, Caution, and Advisory Displays Locator, Figure 2 | 7 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|---|-----------------|---------|
| F/A-18 AFC 253 | — | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | — |

Record of Applicable Technical Directives (Continued)

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|---------------------------------------|------|---|-----------------|---------|
| F/A-18 AFC 292 | — | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | — |
| F/A-18 AFC 225 | - | Five (5) Avionics Multiplex Bus Upgrade, Incorporation of (ECP MDA-F/A-18 0529) | 1 Jun 02 | - |
| F/A-18 AFC 231 | - | Embedded Global Positioning System (GPS)/Inertial Navigation System (INS) (EGI), Incorporation of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |
| F/A-18 AFC 231 Part 2 or Part 3 | - | Embedded Global Positioning System (GPS)/Inertial Navigation System (INS) (EGI), Incorporation of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |

1. INTRODUCTION.

2. This work package contains warning, caution, advisory, fault indicator locations, and voice alert messages. It also lists failure indications and describes the logic which causes the indication.

3. Table 1 describes voice alert messages sent to the pilot's headset for critical aircraft cautions and warnings. In addition to the voice alert messages, references are provided to other caution/warning indications related to the voice alerts.

4. Figures 1 and 2 are master locators.

5. Figures 3 through 16 and figures 29 and 30 describe fault indicators, list the related Digital Display Indicator ID-2150/ASM-612 maintenance (maint) codes, and provide the maintenance actions for the fault indicators. When a fault indicator and the related maintenance code exist, do the maintenance

action prescribed. When a fault indicator exists and the related maintenance code does not exist, reset and ignore the fault indicator.

6. Figures 17 to 27 and 29 describe indicator panel indications and miscellaneous cockpit indications and provide schematic references for troubleshooting aid.

7. Figure 28 describes cautions and advisories which appear on the cockpit digital display indicators. In addition to the descriptions, reference codes, schematic references, and troubleshooting references/maintenance actions are provided. Reference codes are provided with each caution and advisory for entry points to operational flight program logic diagrams. The schematic references are listed to provide the maintenance technician with a troubleshooting aid. Troubleshooting references or specific maintenance actions are listed to aid in repairing the malfunction.

Table 1. Voice Alert Messages

| Voice Alert Message | Description |
|--|---|
| <p align="center">NOTE</p> <p>Intercommunication and Audio System Functional Schematic (A1-F18AC-600-500, WP013 00) may be used as an aid in troubleshooting if required.</p> | |
| <p><u>WARNINGS</u></p> <p>“Check Gear, Check Gear” ◀ 4</p> | <p>Indicates that the ground proximity warning system has determined that a potential gear up landing condition exists.</p> |

Table 1. Voice Alert Messages (Continued)








| Voice Alert Message | Description |
|--|--|
| “Power, Power”  4 | Indicates that the ground proximity warning system has detected an excessive take off or landing sink rate, an altitude below floor, or an Altitude Loss During Recovery situation (ALDR) requiring power exists. Warning is issued twice and then inhibited. |
| “Pull up, Pull up”  4 | Indicates that the ground proximity warning system has detected an altitude below floor, or an Altitude Loss During Recovery situation (ALDR) requiring pull up exists. Warning is issued twice and then inhibited. |
| “Roll out, Roll out”  4 | Indicates that the ground proximity warning system has detected an altitude below floor, or an Altitude Loss During Recovery situation (ALDR) requiring rollout exists. Warning is issued twice and then inhibited. |
| “Altitude. Altitude.” | Indicates aircraft radar altitude below index setting on Height Indicator ID-2163/A or aircraft barometric altitude is below setting entered by way of Electronic Equipment Control C-10380/ASQ (UFC). Voice alert set when low altitude warning light on for radar altitude or when aircraft is below barometric altitude setting (WP009 00). |
| “Whoop, Whoop” (swept frequency tone).  4 | |
| “Engine Fire Left, Engine Fire Left.” | Indicates fire in left engine/AMAD bay. Voice alert set when FIRE indicator on. |
| “Engine Fire Right, Engine Fire Right.” | Indicates fire in right engine/AMAD bay. Voice alert set when FIRE indicator on. |
| “APU Fire, APU Fire.” | Indicates fire in APU bay. Voice alert set when APU FIRE indicator on. |
| “Bleed Air Left, Bleed Air Left.” | Indicates a leak detected in left engine bay or downstream of secondary pressure regulator. Voice alert set when L BLEED indicator on. |
| “Bleed Air Right, Bleed Air Right.” | Indicates a leak detected in right engine bay or downstream of secondary pressure regulator. Voice alert set when R BLEED indicator on. |
| CAUTIONS | |
| “Climb, Climb.”  4 | Indicates that the current aircraft position is outside the safe flight envelope. |
| “Glideslope. Glideslope.”  4 | Indicates that the ILS System has detected an error greater than 1.4 degrees for longer than two seconds. |
| “Sink rate, Sink rate.”  4 | Indicates that the current aircraft position is outside the safe envelope. |

Table 1. Voice Alert Messages (Continued)











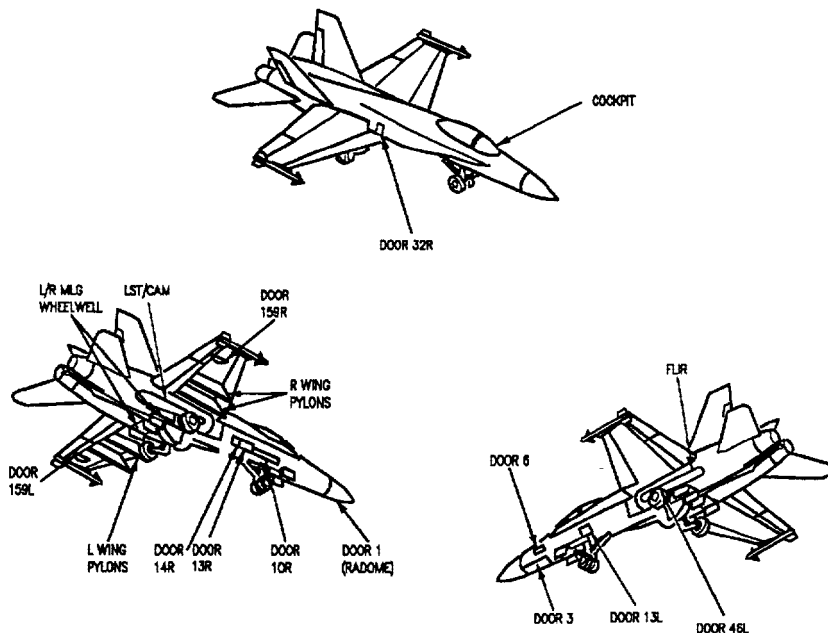
| Voice Alert Message | Description |
|--|--|
| “Fuel Low, Fuel Low.” | Indicates no more than 800 lbs fuel in at least one of the feed tanks. Voice alert set when FUEL LO indicator on and FUEL LO caution indication is displayed. |
| “Bingo, Bingo.” | Indicates total fuel quantity is below the bingo level set on the Integrated Fuel-Engine Indicator ID-2389/A. BINGO caution also displayed on digital display indicator caution display. |
| “Mode 4 Reply, Mode 4 Reply.” | Indicates no response to Mode 4 interrogation, Mode 4 codes have zeroed, or there is a fault in Computer-Transponder KIT-1A/TSEC. IFF 4 displayed on digital display indicator caution display at same time. |
| “Flight Controls, Flight Controls” | <p>Indicates one or more of below has occurred:</p> <ol style="list-style-type: none"> 1.  FCS is one failure away from loss of function. In the case of the quad functions this represents a second like failure and in the case of dual redundant functions a first failure. FCS 2ND displayed on digital display indicator caution display (fig 28) at same time. 2.  Indicates one or more of the pitch, roll, and yaw axes has reverted from CAS to DEL control (DEL ON, fig 28). 3.  Indicates that one or both ailerons are not controllable by the FCS (AIL OFF, fig 28). 4.  Indicates a failure has occurred in the flap control loop so that LEF and/or TEF does not respond to FCES commands (FLAPS OFF, fig 28). 5.  Indicates leading and trailing edge flaps are held at their last commanded positions because angle of attack or air data has failed (FLAP SCHED, fig 28). 6.  Indicates that control has reverted to the mechanical mode (MECH ON, fig 28). 7.  Indicates one or both rudders are not controllable by the FCS (RUD OFF, fig 28). 8.  Indicates that the G limiter function of the FCS has defaulted to 7.5 G's due to an invalid Nz Ref (G-LIM 7.5G, fig 28). |
| “Flight Computer Hot, Flight Computer Hot” | <p>Indicates Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA), or Right Power Supply under-cooled. Voice alert set when FCS HOT indicator (index 5, fig 27) on and FCS HOT indicator (index 5, fig 27) on and FCS HOT caution indication (fig 28) is displayed. (For troubleshooting procedure refer to</p> <p> table 1, A1-F18AC-570-210, WP008 00.</p> <p> table 4, A1-F18AC-570-220, WP028 01.</p> |

Table 1. Voice Alert Messages

| Voice Alert Message | Description |
|---|---|
| “Engine Left, Engine Left” | Indicates one or more of below has occurred: <ol style="list-style-type: none"> 1. Left engine overspeed (L OVRSPD, fig 28) 2. Left engine high or low oil pressure (L OIL PR, fig 28) 3. Left engine EGT high (L EGT HIGH, fig 28) 4. Left engine inlet temperature (L IN TEMP, fig 28) 5. Left engine flameout (L FLAMEOUT, fig 28) |
| “Engine Right, Engine Right” | Indicates one or more of below has occurred: <ol style="list-style-type: none"> 1. Right engine overspeed (R OVRSPD, fig 28) 2. Right engine high or low oil pressure (R OIL PR, fig 28) 3. Right engine EGT high (R EGT HIGH, fig 28) 4. Right engine inlet temperature (R IN TEMP, fig 28) 5. Right engine flameout (R FLAMEOUT, fig 28) |
| LEGEND <div> <div>1</div> 161353 THRU 161519 </div> <div> <div>2</div> 161520 AND UP </div> <div> <div>3</div> 162394 AND UP </div> <div> <div>4</div> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 </div> | |



| FAULT INDICATORS LOCATIONS | FIGURE NO. |
|-------------------------------|---------------|
| COCKPIT | 3 |
| DOOR 1 | 4 |
| DOOR 3 | 5 |
| DOOR 6 | 6 |
| DOOR 10R | 7 |
| DOOR 13L | 8 |
| DOOR 13R | 9 |
| DOOR 14R | 10 |
| DOOR 32R | 11 |
| DOOR 46L | 12 |
| DOOR 159L/R | 13 |
| NOSE WHEELWELL | 14 |
| L/R MLG WHEELWELL | 15 |
| L/R WING PYLONS | 16 |
| REAR COCKPIT | 3 |
| LST/CAM | 29 |

LEGEND

1 161353 THRU 161987

Figure 1. Fault Indicators Location

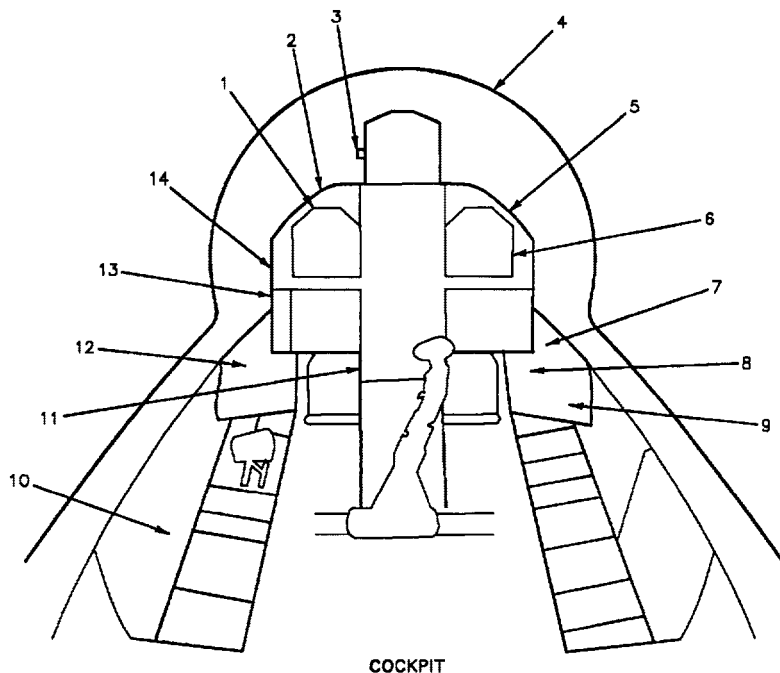
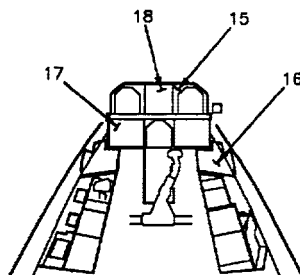


Figure 2. Warning, Caution, and Advisory Displays Locator (Sheet 1)



REAR COCKPIT

| INDEX NO. | REF DES | NOMENCLATURE | FIGURE NO. |
|-----------|----------|--|------------|
| 1 | 80A-H001 | LEFT DIGITAL DISPLAY INDICATOR IP-1317() | 28 |
| 2 | 52A-H073 | LH ADVISORY AND THREAT WARNING INDICATOR PANEL | 17 |
| 3 | | AQA INDEXER ASSEMBLY | 26 |
| 4 | 8DSJ150 | LOCK/SHOOT LIGHT ASSEMBLY | 19 |
| 5 | 52A-J074 | RH ADVISORY AND THREAT WARNING INDICATOR PANEL | 18 |
| 6 | 80A-J002 | RIGHT DIGITAL DISPLAY INDICATOR IP-1317() | 28 |
| 7 | 19A-J003 | ARRESTING HOOK CONTROL | 20 |
| 8 | 67A-J002 | HEIGHT INDICATOR ID-2163/A | 21 |
| 9 | 8A-J042 | CAUTION LIGHT INDICATOR PANEL | 27 |
| 10 | 52A-H079 | APU CONTROL PANEL ASSEMBLY | 22 |
| 11 | 80A-J003 | HORIZONTAL INDICATOR IP-1350/A | 28 |
| 12 | 12A-H008 | LDG GEAR CONTROL | 23 |
| 13 | 52A-H084 | FLAPS, LANDING GEAR, AND STORES INDICATOR PANEL | 24 |
| 14 | 52A-H075 | MASTER ARM CONTROL PANEL ASSEMBLY | 25 |
| 15 | 61A-K217 | MASTER MODE SELECT PANEL | 25 |
| 16 | 8A-L127 | CAUTION LIGHT INDICATOR PANEL | 27 |
| 17 | 52A-K305 | LANDING GEAR FLAPS INDICATOR PANEL | 24 |
| 18 | 52A-K303 | REAR ADVISORY AND THREAT WARNING INDICATOR PANEL | 30 |

Figure 2. Warning, Caution, and Advisory Displays Locator (Sheet 2)

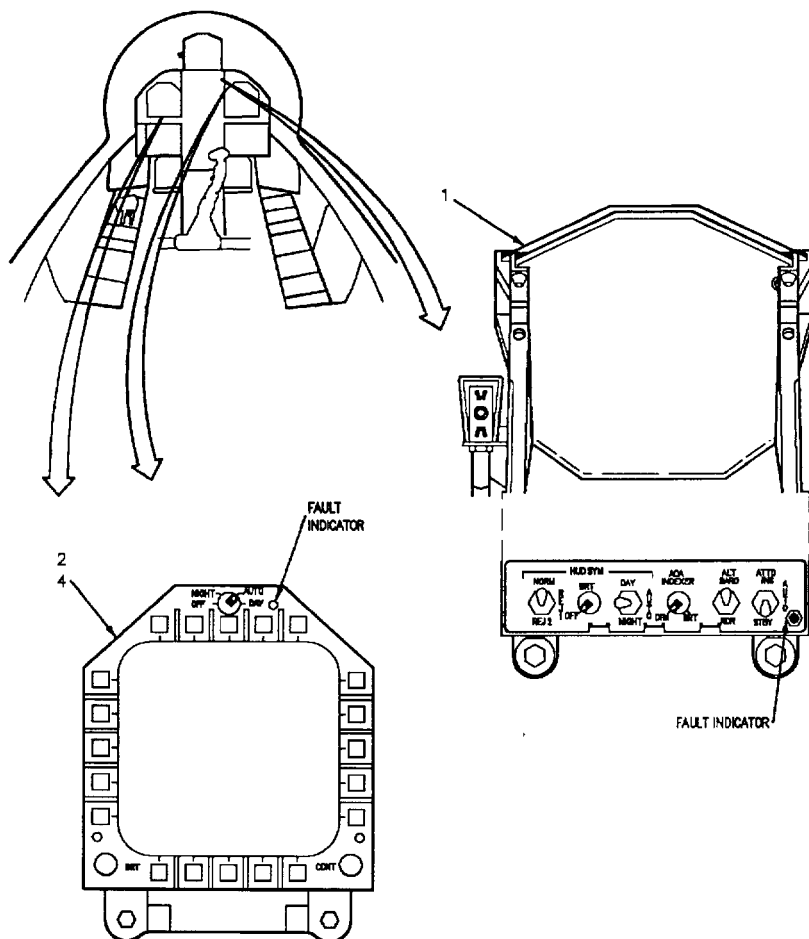


Figure 3. Cockpit WRA Fault Indicators (Sheet 1)

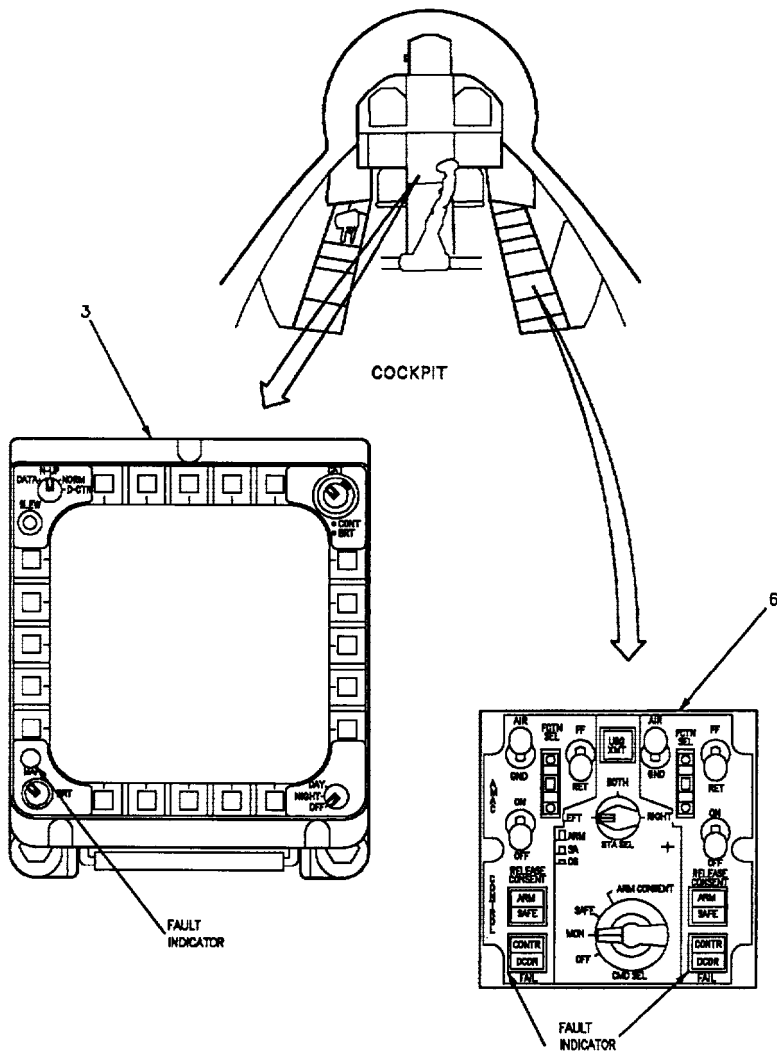


Figure 3. Cockpit WRA Fault Indicators (Sheet 2)

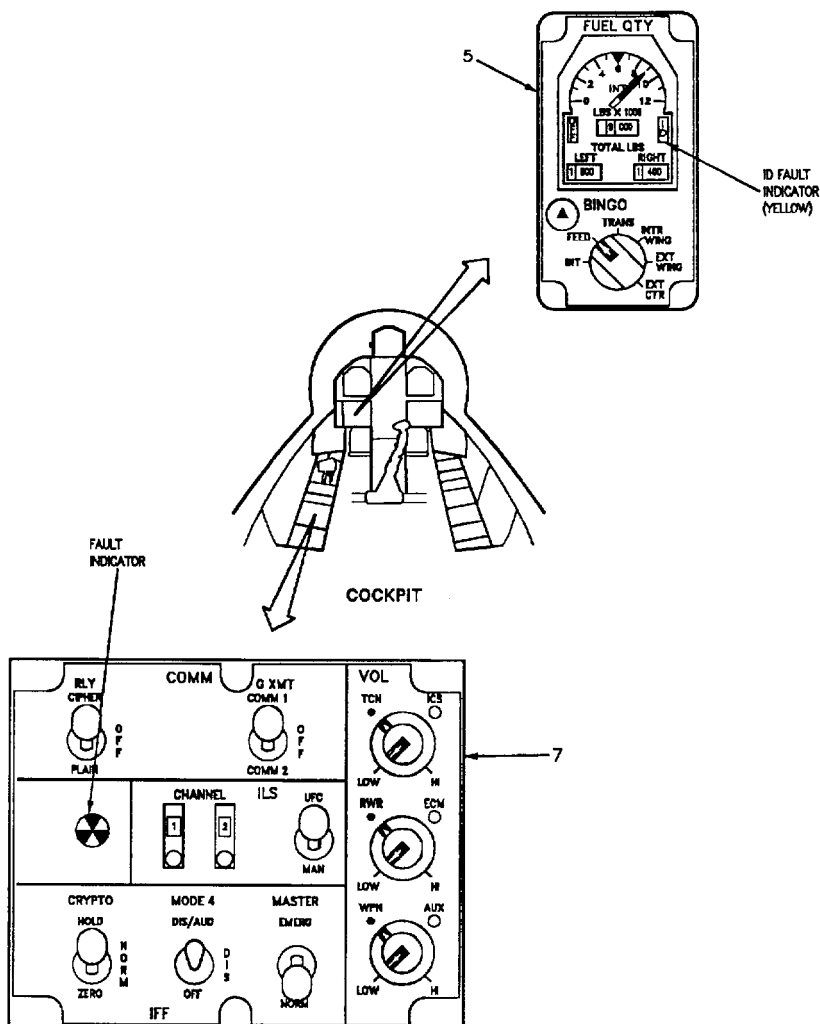


Figure 3. Cockpit WRA Fault Indicators (Sheet 3)

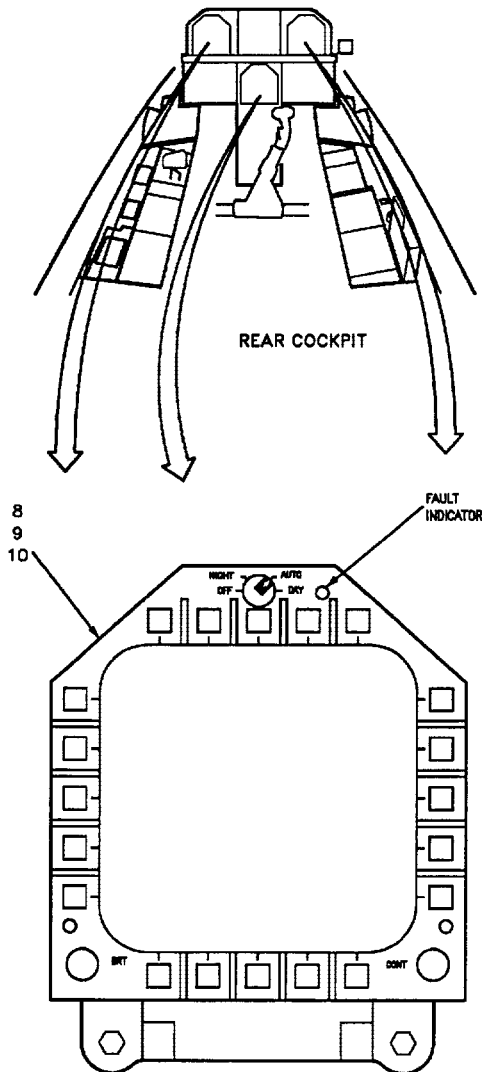


Figure 3. Cockpit WRA Fault Indicators (Sheet 4)

| Index | Malfunction | Related Maint. Code | Maintenance Action |
|-------|--|---------------------|--|
| 1 | Head-Up Display AN/AVQ-28 fault indicator latched (black and white) | 098 | <ul style="list-style-type: none"> Replace Head-Up Display Unit AN/AVQ-28 (A1-F18AC-745-300, WP003 00). |
| 2 | Right Digital Display Indicator fault indicator latched (black and white) | 096 | <ul style="list-style-type: none"> Replace Right Digital Display Indicator IP-1317/A (A1-F18AC-745-300, WP004 00). |
| 3 | Horizontal Indicator IP-1350/A fault indicator latched (black and white) | 097 | <ul style="list-style-type: none"> Replace Horizontal Indicator IP-1350/A (A1-F18AC-745-300, WP006 00). |
| | | 421 | <ul style="list-style-type: none"> Replace Lamp Assembly (A1-F18AC-745-300, WP023 00). |
| 4 | Left Digital Display Indicator fault indicator latched (black and white) | 095 | <ul style="list-style-type: none"> Replace Left Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| 5 | FUEL QTY Indicator, ID fault indicator latched (yellow) | - | <ul style="list-style-type: none"> Normal indication with electrical power off. Do table 2 (A1-F18AC-460-200, WP025 00). |
| 6 | Left DCDR on | - | <ul style="list-style-type: none"> Replace Left Outboard Wing Pylon Encoder-Decoder Power Supply KY-842/AWB-3(V) (A1-F18AC-740-300, WP004 00). |
| | Right DCDR on | - | <ul style="list-style-type: none"> Replace Right Outboard Wing Pylon Encoder-Decoder Power Supply KY-842/AWB-3(V) (A1-F18AC-740-300, WP004 00). |
| | Left or right CONTR on | - | <ul style="list-style-type: none"> Replace Control-Monitor C-10295/AWB-3(V) (A1-F18AC-740-300, WP003 00). |
| 7 | Intercommunication Amplifier-Control AM-6979/A fault indicator latched (black and white) | 146 | <ul style="list-style-type: none"> Replace Intercommunication Amplifier-Control AM-6979/A (A1-F18AC-600-300, WP012 00). |
| 8 | Rear Left Digital Display Indicator IP-1318() fault indicator latched (black and white). | 099 | <ul style="list-style-type: none"> Replace Rear Left Digital Display Indicator IP-1318() (A1-F18AC-745-300, WP007 00). |
| 9 | Rear Right Digital Display Indicator IP-1318() fault indicator latched (black and white) | 100 | <ul style="list-style-type: none"> Replace Rear Right Digital Display Indicator IP-1318() (A1-F18AC-745-300, WP007 00). |
| 10 | Rear Center Digital Display Indicator IP-1318() fault indicator latched (black and white) | 101 | <ul style="list-style-type: none"> Replace Rear Center Digital Display Indicator IP-1318() (A1-F18AC-745-300, WP005 00). |

Figure 3. Cockpit WRA Fault Indicators (Sheet 5)

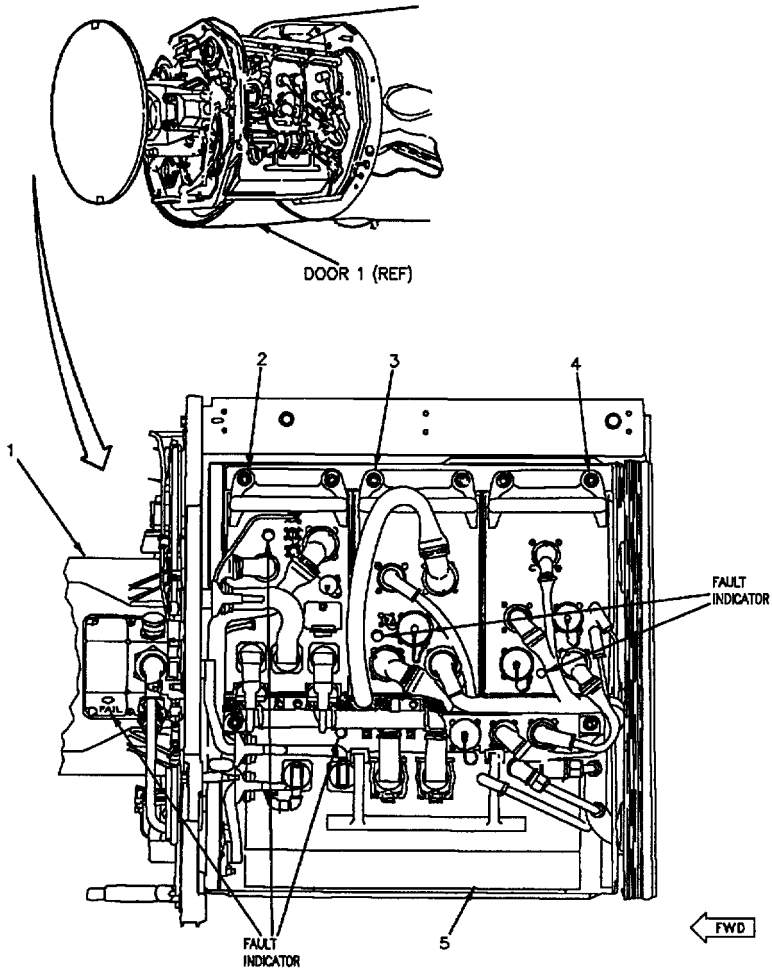


Figure 4. Door 1 WRA Fault Indicators (Sheet 1)











| Index | Malfunction | Related Maint. Code | Maintenance Action |
|---|--|---------------------|--|
| 1  | Antenna AS-3254/APG-65 fault indicator latched (black and white) | 044 | <ul style="list-style-type: none"> Do Radar Initiated Built-In Test procedure (A1-F18AC-742-200, WP004 00). |
| 2  | Radar Receiver-Exciter R-2089/APG-65 fault indicator latched (black and white) | 042 | <ul style="list-style-type: none"> Replace Radar Receiver-Exciter R-2089/APG-65 (A1-F18AC-742-300, WP006 00). |
| 3  | Computer-Power Supply CP-1325/APG-65 fault indicator latched (black and white) | 043 | <ul style="list-style-type: none"> Replace Computer-Power Supply CP-1325/APG-65 (A1-F18AC-742-300, WP005 00). |
| 4  | Radar Target Data Processor CP-1326/APG-65 fault indicator latched (black and white) | 040 | <ul style="list-style-type: none"> Replace Radar Target Data Processor CP-1326/APG-65 (A1-F18AC-742-800, WP004 00). |
| 5  | Radar Transmitter T-1377/APG-65 fault indicator latched (black and white) | 041 | <ul style="list-style-type: none"> Replace Radar Transmitter T-1377/APG-65 (A1-F18AC-742-300, WP007 00). |
| LEGEND | | | |
| 1  | WITH ANTENNA AS-3254/APG-65, P/N 3525031-145 AND UP, fault indicator is not installed. | | |
| 2  | WITH RECEIVER-EXCITER R-2089/APG-65, P/N 3525022-145 AND UP, fault indicator is not installed. | | |
| 3  | WITH COMPUTER-POWER SUPPLY CP-1325/APG-65, P/N 3525681-145 AND UP, fault indicator is not installed. | | |
| 4  | WITH RADAR TARGET DATA PROCESSOR CP-1326/APG-65, P/N 3525041-145 AND UP, fault indicator is not installed. | | |
| 5  | WITH TRANSMITTER T-1377/APG-65, PIN 3525011-145 AND UP, fault indicator is not installed. | | |

Figure 4. Door 1 WRA Fault Indicators (Sheet 2)

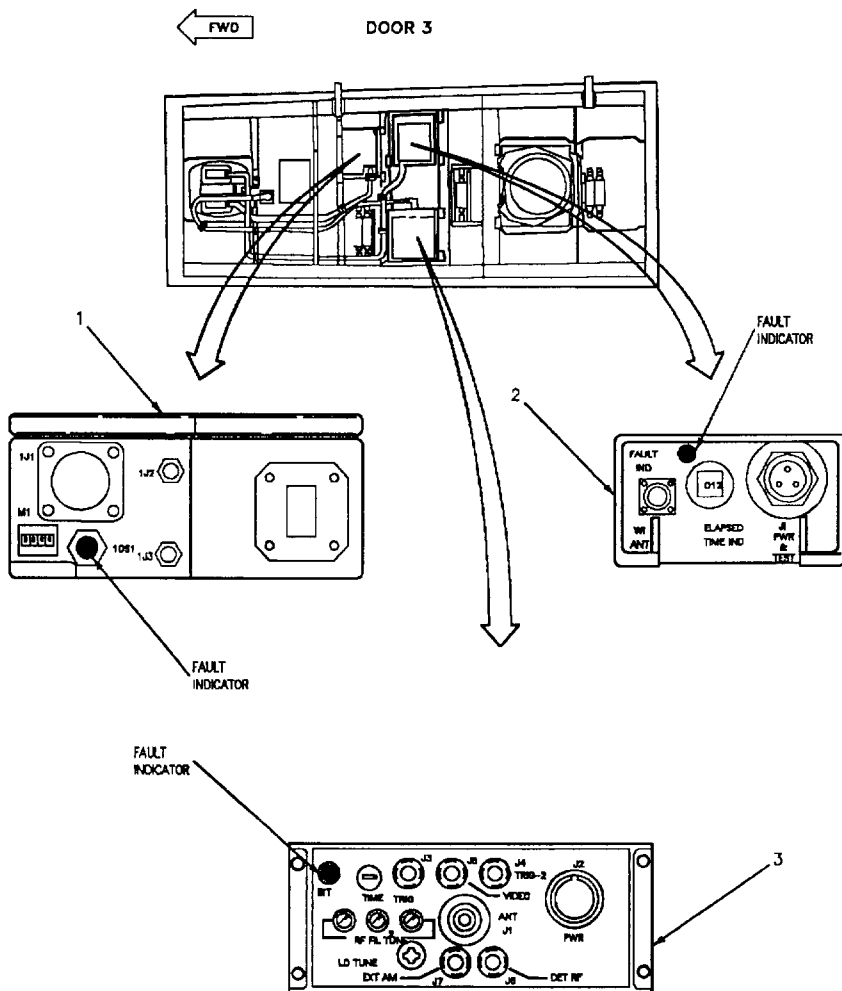


Figure 5. Door 3 WRA Fault Indicators (Sheet 1)



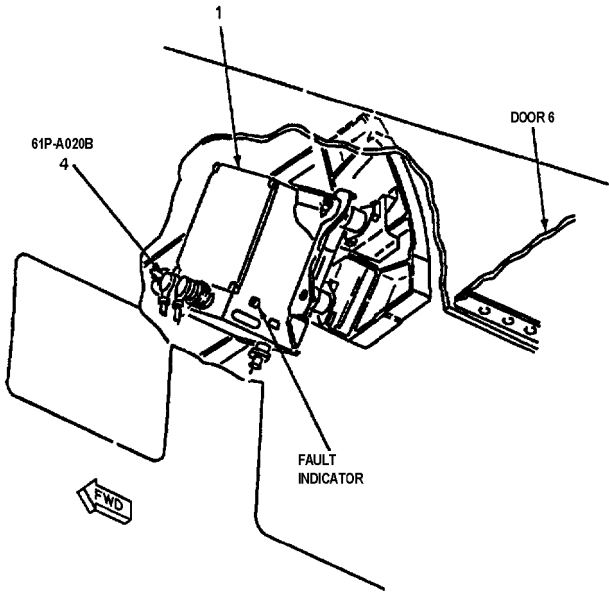
| Index | Malfunction | Related Maint. Code  | Maintenance Action |
|---|--|--|---|
| 1 | Radio Receiver R-1379()/ARA-63 fault indicator latched (white) | 148 | <ul style="list-style-type: none"> • Replace Radio Receiver R-1379 ()/ARA-63 (A1-F18AC-630-300, WP003 00). Open door 13R (A1-F18AC-LMM-010). Reset fault indicator on Pulse Decoder KY-651()/ARA-63 by turning clockwise until indicator black and white. Close door 13R (A1-F18AC-LMM-010). |
| 2 | Radar Receiver R-1623/APN fault indicator latched (white) | 151 | <ul style="list-style-type: none"> • Replace Radar Receiver R-1623/APN (A1-F18AC-630-300, WP009 00). |
| 3 | Radar Receiver-Transmitter RT-1028/APN-202 fault indicator latched (white) | 153 | <ul style="list-style-type: none"> • Replace Radar Receiver-Transmitter RT-1028/APN-202 (A1-F18AC-630-300, WP008 00). |
| <p style="text-align: center;">LEGEND</p> <p> F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | | | |

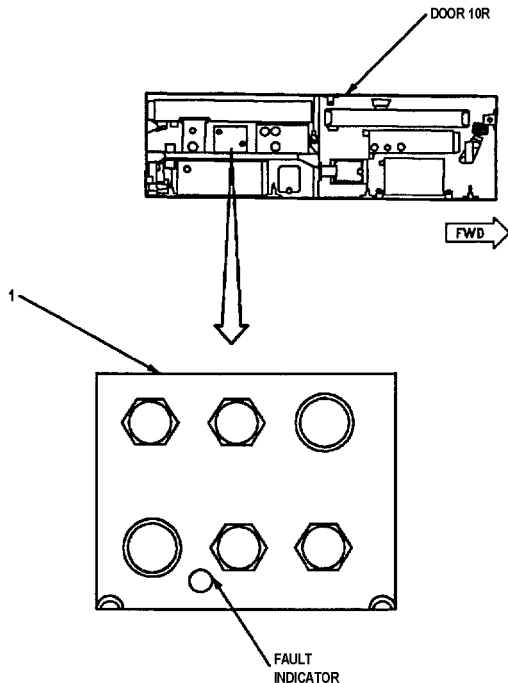
Figure 5. Door 3 WRA Fault Indicators (Sheet 2)



004006

| Index | Malfunction | Related Maint. Code 1 | Maintenance Action |
|---|--|--------------------------|--|
| 1 | Gun Command Signal Decoder KY-855/AYQ-9(V) fault indicator latched (black and white) | 080 | Ignore fault indicator status. Use maintenance code to determine component fail status. When related maintenance code is set, replace Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) (A1-F18AC-740-300, WP011 00). |
| LEGEND | | | |
| 1 F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | | |

Figure 6. Door 6 WRA Fault Indicators



004007

| Index | Malfunction | Related Maint. Code | Maintenance Action |
|---|--|---------------------|---|
| | | 1 | |
| 1 | Air Data Sensor DT-600/ASW-44 fault indicator latched. (black and white) | 189 | Latch does not indicate unit malfunction. Reset and ignore. |
| LEGEND | | | |
| 1 F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | | |

Figure 7. Door 10R WRA Fault Indicators

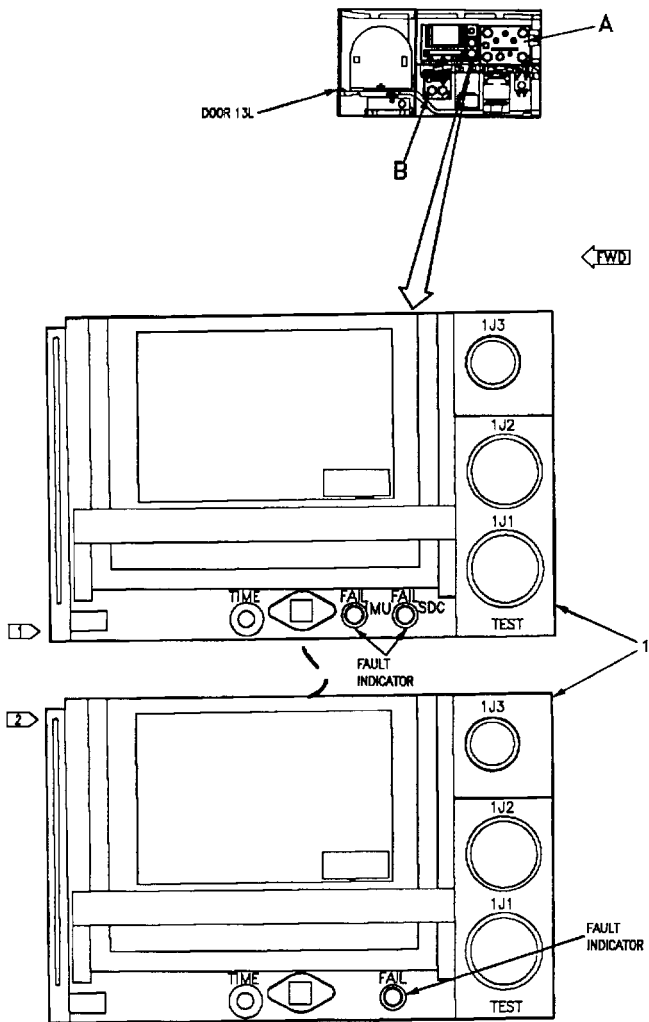
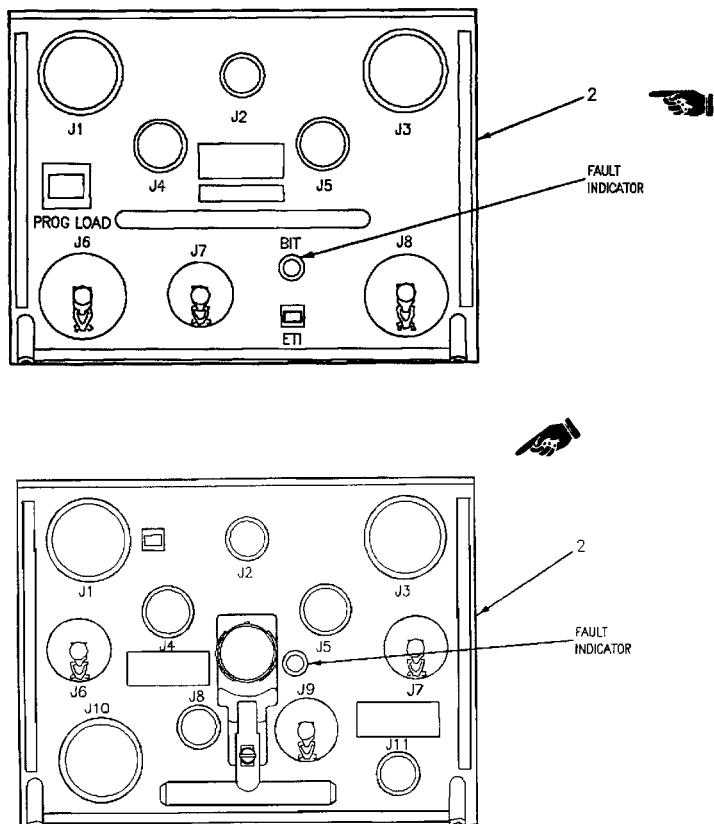
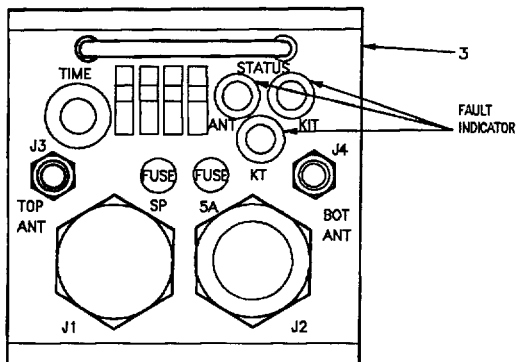


Figure 8. Door 13L WRA Fault Indicators (Sheet 1)



A

Figure 8. Door 13L WRA Fault Indicators (Sheet 2)

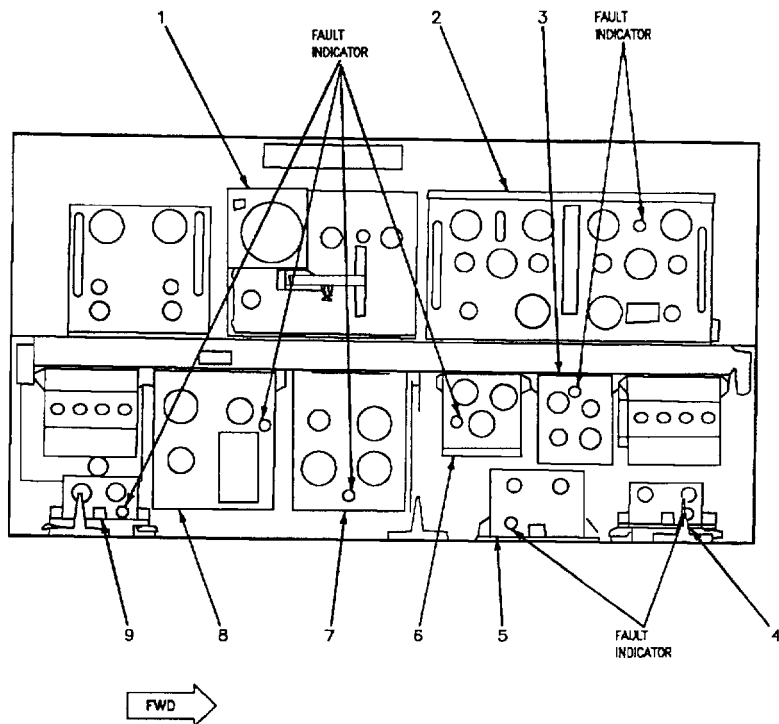


B

Figure 8. Door 13L WRA Fault Indicators (Sheet 3)



| Index | Malfunction | Related Maint. Code 3 | Maintenance Action |
|---|---|--------------------------|--|
| 1 | 1 SDC FAIL fault indicator latched (black and white) | 115 | <ul style="list-style-type: none"> Replace Inertial Navigation Group OA-8955/ASN-130 (A1-F18AC-730-300, WP004 00). |
| | 1 IMU FAIL fault indicator latched (black and white) | 115 | <ul style="list-style-type: none"> Replace Inertial Navigation Group OA-8955/ASN-130 (A1-F18AC-730-300, WP004 00). |
| | 2 FAIL fault indicator latched (black and white) | 115 | <ul style="list-style-type: none"> Replace Inertial Navigation Unit CN-1561/ASN-130A (A1-F18AC-730-300, WP004 01). |
| 2 | Digital Data Computer No. 1 fault indicator latched (black and white) | 032 | <ul style="list-style-type: none"> Replace Digital Data Computer No. 1 (A1-F18AC-741-300, WP003 00). |
| 3 | ANT STATUS fault indicator latched (black and white) | 150 | <ul style="list-style-type: none"> Reset ANT STATUS indicator and do IFF System Built-In Test (A1-F18AC-600-200, WP032 00). |
| | KIT STATUS fault indicator latched (black and white) | - | <ul style="list-style-type: none"> Replace Computer-Transponder KIT-1A/TSEC (A1-F18AC-600-300, WP019 00). |
| | RT STATUS fault indicator latched (black and white) | - | <ul style="list-style-type: none"> Replace Receiver-Transmitter RT-1157(J)/APX-100(V) (A1-F18AC-600-300, WP018 00). |
| LEGEND | | | |
| 1 161353 THRU 161528. | | | |
| 2 161702 AND UP. | | | |
| 3 F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | | |

Figure 8. Door 13L WRA Fault Indicators (Sheet 4)



DOOR 13R

Figure 9. Door 13R WRA Fault Indicators (Sheet 1)

| Index | Malfunction | Related Maint. Code  | Maintenance Action |
|---|---|--|---|
| 1 | Command Launch Computer CP-1001/AWG fault indicator latched (black and white) | 375 | <ul style="list-style-type: none"> • Replace Command Launch Computer CP-1001/AWG (A1-F18AC-740-300, WP010 00). |
| 2 | Roll-Pitch-Yaw Computer CP-1330/ASW-44(FCCA) fault indicator latched (black and white) | - | <ul style="list-style-type: none"> • Latch does not indicate unit malfunction. Reset and ignore. |
| 3 | Interference Blanker MX-9965/A fault indicator latched (black and white) | 149 | <ul style="list-style-type: none"> • Replace Interference Blanker MX-9965/A (A1-F18AC-760-300, WP003 00). |
| 4 | Linear Electrical Accelerometer CN-1512/ASW-44 (84A-F004) fault indicator latched (black and white) | - | <ul style="list-style-type: none"> • Latch does not indicate unit malfunction. Reset and ignore. |
| 5 | Rate Gyroscope CN-1511/ASW-44 (84A-F007) fault indicator latched (black and white) | - | <ul style="list-style-type: none"> • Latch does not indicate unit malfunction. Reset and ignore. |
| 6 | Pulse Decoder KY-651()/ARA-63 fault indicator latched (white) | 148 | <ul style="list-style-type: none"> • Do troubleshooting procedure (A1-F18AC-FIM-000, WP010 00). |
| 7 | Air Data Computer CP-1334/A fault indicator latched (black and white) | 125 | <ul style="list-style-type: none"> • Replace air Data Computer CP-1334/A (A1-F18AC-560-300, WP003 00). |
| 8 | Control-Converter C-10382/A fault indicator latched (black and white) | 145 | <ul style="list-style-type: none"> • Replace Control-Converter C-10382/A (A1-F18AC-741-300, WP005 00). |
| 9 | Linear Electrical Accelerometer CN-1512/ASW-44 (84A-F005) fault indicator latched (black and white) | - | <ul style="list-style-type: none"> • Latch does not indicate unit malfunction. Reset and ignore. |
| <div>  F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. </div> | | | |

LEGEND

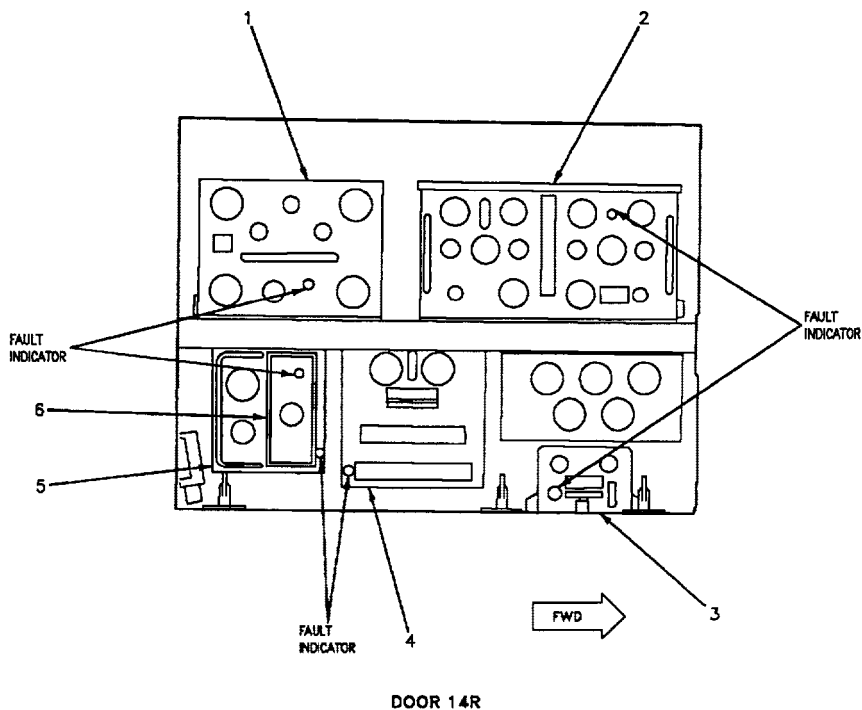


Figure 10. Door 14R WRA Fault Indicators (Sheet 1)



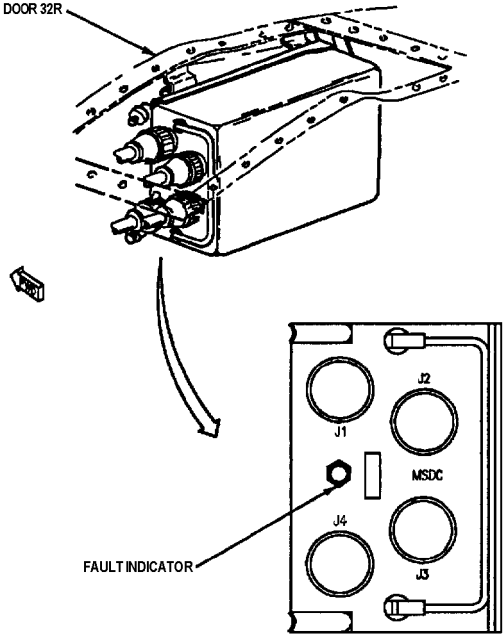
| Index | Malfunction | Related Maint. Code  | Maintenance Action |
|---|---|--|--|
| 1 | Digital Data Computer No. 2 fault indicator latched (black and white) | 036 | <ul style="list-style-type: none"> Replace Digital Data Computer No. 2 (A1-F18AC-741-300, WP004 00). |
| 2 | Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCB) fault indicator latched (black and white) | - | <ul style="list-style-type: none"> Latch does not indicate unit malfunction. Reset and ignore. |
| 3 | Rate Gyroscope CN-1511/ASW-44 (84A-F006) fault indicator latched (black and white) | - | <ul style="list-style-type: none"> Latch does not indicate unit malfunction. Reset and ignore. |
| 4 | Armament Computer CP-1342/AYQ-9(V) fault indicator latched (black and white) | 070 | <ul style="list-style-type: none"> Ignore fault indicator status. Use maintenance code to determine component fail status. When related maintenance code is set, replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). |
| 5 | Signal Data Recorder RO-508/ASM-612 fault indicator latched (black and white) | 165 | <ul style="list-style-type: none"> Replace Signal Data Recorder RO-508/ASM-612 (A1-F18AC-580-300, WP004 00). |
| 6 | Magnetic Tape Cartridge MX-9972/ASM-612 Fault indicator latched (black and white) | 166 | <ul style="list-style-type: none"> Replace Magnetic Tape Cartridge MX-9972/ASM-612 (A1-F18AC-580-300, WP004 00). |
| <p align="center">LEGEND</p> <p> F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | | | |

Figure 10. Door 14R WRA Fault Indicators (Sheet 2)



004011

| Index | Malfunction | Related Maint. Code 1 ➡ | Maintenance Action |
|---|---|----------------------------|---|
| 1 | Signal Data Converter CV-3493/ASM-612 fault indicator latched (black and white) | 030 | Replace Signal Data Converter CV-3493/ASM-612 (A1-F18AC-580-300, WP003 00). |
| LEGEND | | | |
| 1 ➡ F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | | |

Figure 11. Door 32R WRA Fault Indicators

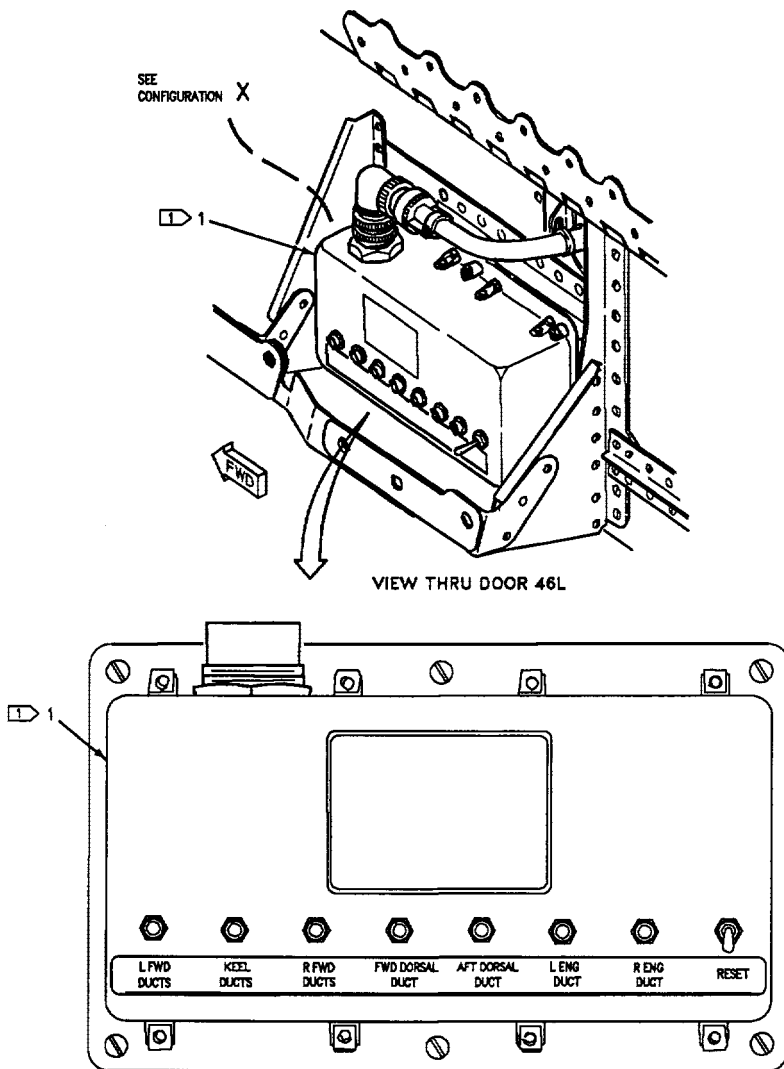


Figure 12. Door 46L WRA Fault Indicators (Sheet 1)

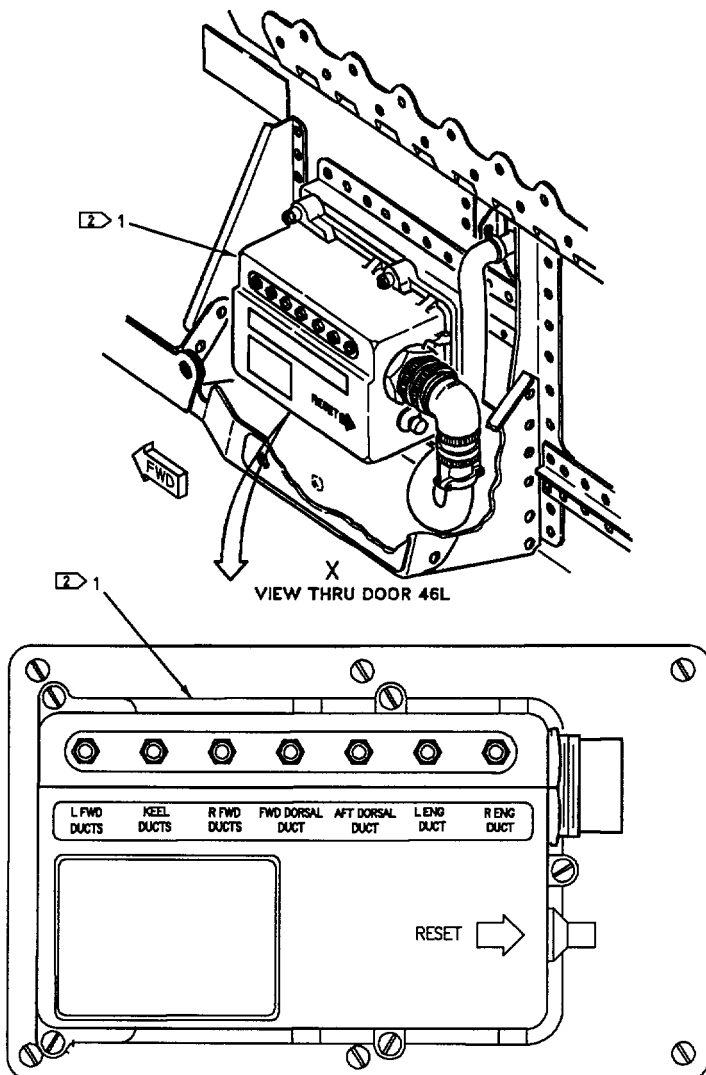


Figure 12. Door 46L WRA Fault Indicators (Sheet 2)

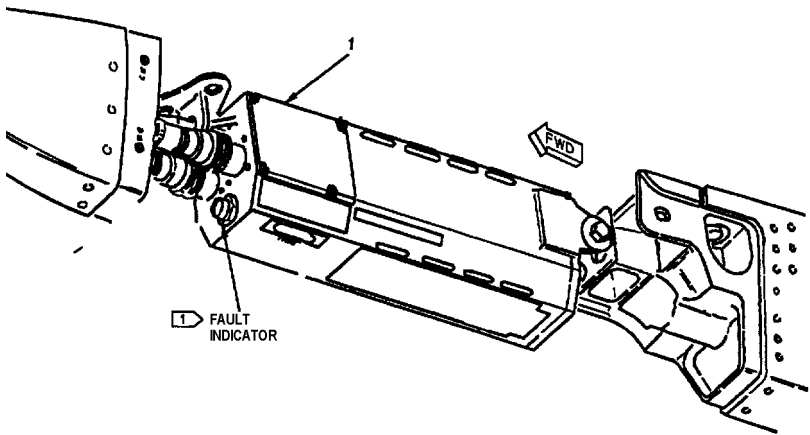
LEGEND

- 1

ON 161353 THRU 162852, P/N 4438-9 OR 4438-10.
- 2

ON 162853 AND UP, P/N 5944-02.

| INDEX NO. | MALFUNCTION | MALFUNCTION ACTION |
|-----------|---|--|
| 1 | BLEED AIR LEAD DETECTION WARNING SYSTEM CONTROL UNIT | |
| | L FWD DUCTS FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | KEEL DUCTS FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | R FWD DUCTS FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | FWD DORSAL DUCT FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | AFT DORSAL DUCT FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | L ENG DUCT FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | R ENG DUCT FAULT INDICATOR LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |
| | ALL FAULT INDICATORS LATCHED (BLACK AND WHITE) | DO TABLE 1 (A1-F18AC-410-200, WP008 00). |



004013

| Index | Malfunction | Related Maint. Code 2 | Maintenance Action |
|---|---|---------------------------|---|
| 1 | Wing Tip Command Signal Encoder-Decoder KY-851/AYQ-9(V) fault indicator latched (black and white) | 071 (Left) 079 (Right) | Ignore fault indicator status. Use maintenance code to determine component fail status. When related maintenance code is set, replace Wing Tip Command Signal Encoder-Decoder KY-851/AYQ-9(V) (A1-F18AC-740-300, WP007 00). |
| LEGEND | | | |
| 1 161353 THRU 161967. | | | |
| 2 F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | | |

Figure 13. Door 159L/R WRA Fault Indicators

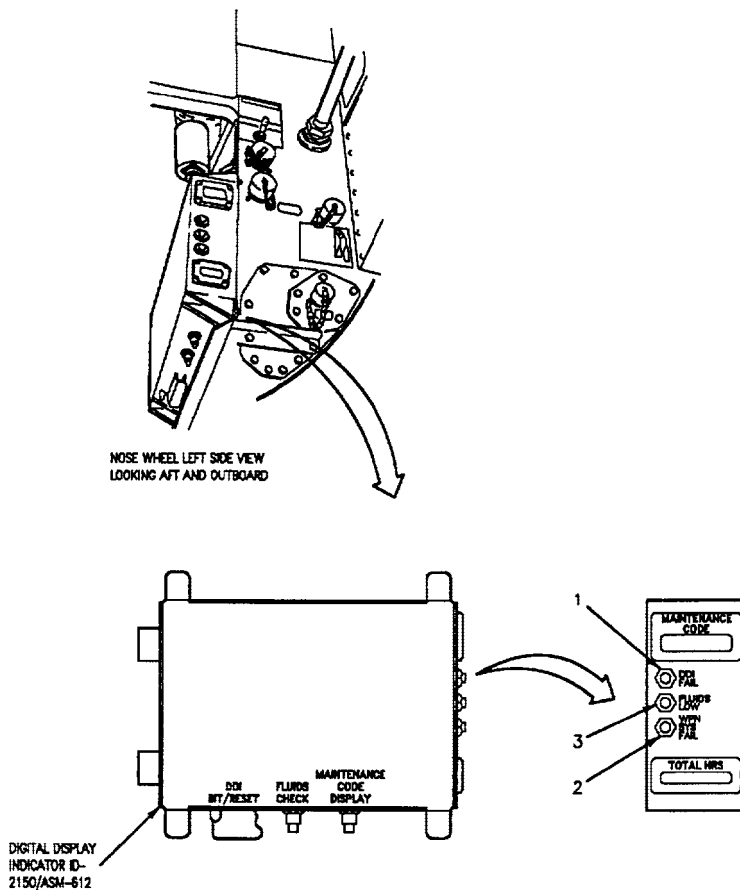


Figure 14. Nose Wheelwell WRA Fault Indicators (Sheet 1)





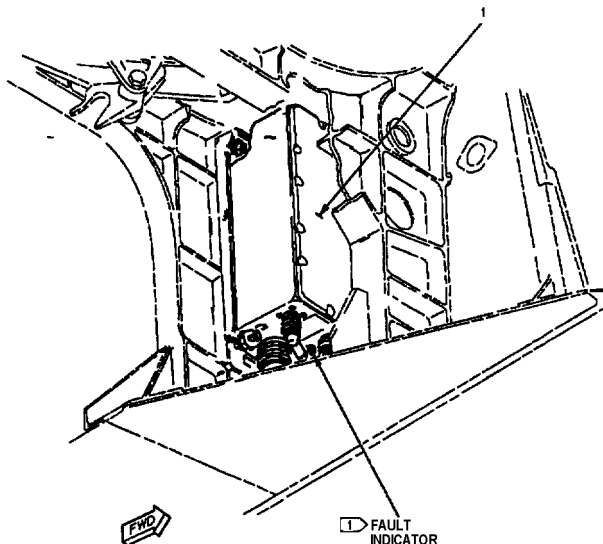
| Index | Malfunction | Related Maint. Code  | Maintenance Action |
|--|--|--|--|
| 1 | DDI FAIL fault indicator latched (black and white) |  168 | <ul style="list-style-type: none"> • Replace Digital Display Indicator ID-2150/ASM-612 (A1-F18AC-580-300, WP005 00). |
| 2 | WPN SYS FAIL fault indicator latched (black and white) | - | <ul style="list-style-type: none"> • Read and record failure codes (A1-F18AC-LMM-000, WP003 00). • Determine correct maintenance action. See WP003 00. |
| 3 | FLUIDS LOW fault indicator latched (black and white) | - | <ul style="list-style-type: none"> • Test for fluids low (A1-F18AC-PCM-000, WP006 00). |
| LEGEND  F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.  F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODE 168 NO LONGER VALID FOR DDI FAIL. | | | |

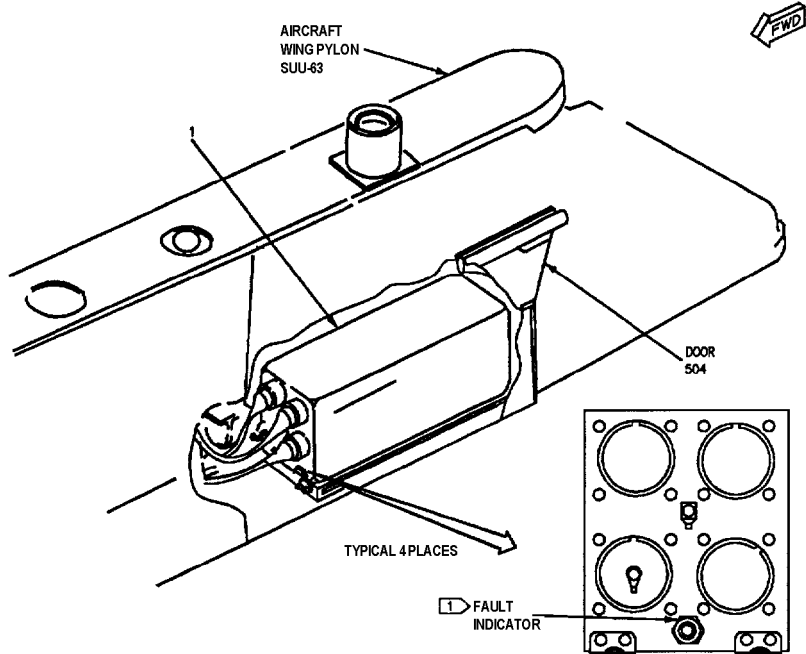
Figure 14. Nose Wheelwell WRA Fault Indicators (Sheet 2)



004015

| Index | Malfunction | Related Maint. Code 2 | Maintenance Action |
|---------------|---|---------------------------|---|
| 1 | Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) fault indicator latched (black and white) | 074 (Left) 076 (Right) | Ignore fault indicator status. Use maintenance code to determine component fail status. When related maintenance code is set, replace Fuselage Command Signal Encoder-Decoder KY-854/AYQ-9(V) (A1-F18AC-740-300, WP008 00). |
| LEGEND | | | |
| 1 | 161353 THRU 161967. | | |
| 2 | F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | |

Figure 15. L/R MLG Wheelwell WRA Fault Indicators



004016

| Index | Malfunction | Related Maint. Code 2 | Maintenance Action |
|--------|---|--------------------------|---|
| 1 | Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) fault indicator latched (black and white) | 072 073 077 078 | Ignore fault indicator status. Use maintenance code to determine component fail status. When related maintenance code is set, replace Wing Pylon Command Signal Encoder-Decoder KY-853/AYQ-9(V) (A1-F18AC-740-300, WP009 00). |
| LEGEND | | | |
| 1 | 161353 THRU 161967. | | |
| 2 | F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | | |

Figure 16. L/R Wing Pylons WRA Fault Indicators

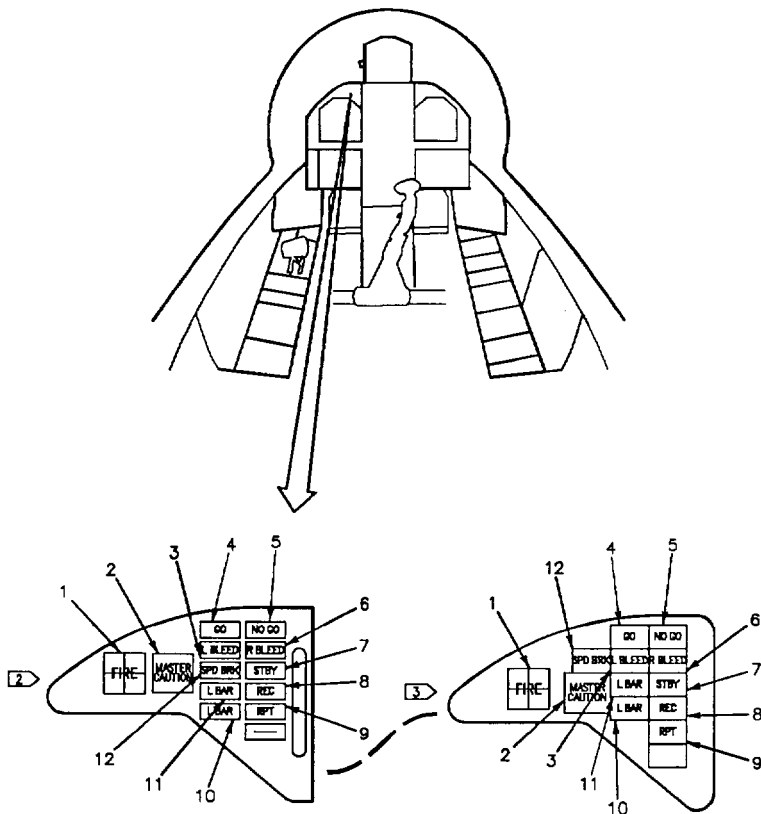


Figure 17. LH Advisory and Threat Warning Indicator Panel Indications (Sheet 1)


| Index | Indication | Description |
|-------|----------------|---|
| 1 | FIRE | Red light on indicates a fire condition in the left engine/AMAD (Loop A/Loop B bay Fire Detection System Schematic, A1-F18AC-240-500, WP009 00). |
| 2 | MASTER CAUTION | Yellow light on indicates caution condition exists. Light is turned off by pressing MASTER CAUTION light/switch (Cockpit Caution Lights Schematic, A1-F18AC-440-500, WP006 00). |
| 3 | L BLEED | Red light on when leak detected in left engine bay or downstream of secondary pressure regulator (Bleed Air Leak Detection System Schematic, A1-F18AC-410-500, WP006 00). |
| 4 | GO | Green light on indicates countermeasures set BIT status is GO (Countermeasures Set Functional Schematic, A1-F18AC-760-500, WP008 00). |
| 5 | NO GO | Yellow light on indicates countermeasures set BIT status is NO GO (Countermeasures Set Functional Schematic, A1-F18AC-760-500, WP008 00). |
| 6 | R BLEED | Red light on when leak detected in right engine bay or downstream of secondary pressure regulator (Bleed Air Leak Detection System Schematic, A1-F18AC-410-500, WP006 00). |
| 7 | STBY | With ECM mode switch in STBY on ECM Control Panel Assembly, yellow light on indicates countermeasures set warmup time (Approximately four minutes) is not completed. With mode switch in REC or RPT, yellow light on indicates countermeasures set is inoperative (Countermeasures Set Functional Schematic, A1-F18AC-760-500, WP008 00). |
| 8 | REC | With ECM mode switch in REC on ECM Control Panel Assembly, yellow light on indicates Aircraft illumination by pulse modulated radar. With mode switch in RPT, yellow light on indicates Aircraft illumination by pulse modulated radar of a nonthreat type (Countermeasures Set Functional Schematic, A1-F18AC-750-500, WP008 00). |
| 9 | RPT | With ECM mode switch in RPT on ECM Control Panel Assembly, green light on indicates Aircraft illumination by pulse modulated radar. The Countermeasures Set is transmitting (Countermeasures Set Functional Schematic, A1-F18AC-760-500, WP008 00). |
| 10 | L BAR (red) | <p>Light on indicates:</p> <ol style="list-style-type: none"> 1. LAUNCH BAR control switch on LH Vertical Console Control Panel set to EXTEND, weight off L MLG and 28vdc primary power is applied. 2. LAUNCH BAR control switch on LH Vertical Console Control Panel set to EXTEND, L MLG not down and locked, and 28vdc primary power is applied. 3. Launch bar assembly extended, weight off L MLG, and 28vdc primary power applied. 4. Launch bar assembly extended, L MLG not down and locked, and 28vdc primary power applied. <p> 5. LAUNCH BAR control switch on LH Vertical Console Control Panel set to EXTEND, both throttles at or above MIL power, and 28vdc applied (Catapult System Schematic, A1-F18AC-130-500, WP011 00).</p> |

Figure 17. LH Advisory and Threat Warning Indicator Panel Indications (Sheet 2)

| Index | Indication | Description |
|-----------------------|------------------|--|
| 11 | L BAR (green) | Light on indicates launch bar assembly is extended, LAUNCH BAR control switch in EXTEND on LH Vertical Console Control Panel, weight on NLG, 28vdc primary power is applied, and L BAR (red) indicator light is not on (Catapult System Schematic, (A1-F18AC-130-500, WP011 00). |
| 12 | SPD BRK | Green light on when speed brake extended, off when retracted (Speed Brake System Schematic, A1-F18AC-570-500, WP026 00). |
| LEGEND | | |
| 1 161353 THRU 161715. | | |
| 2 161702 AND UP. | | |
| 3 161353 THRU 161528. | | |

Figure 17. LH Advisory and Threat Warning Indicator Panel Indications (Sheet 3)

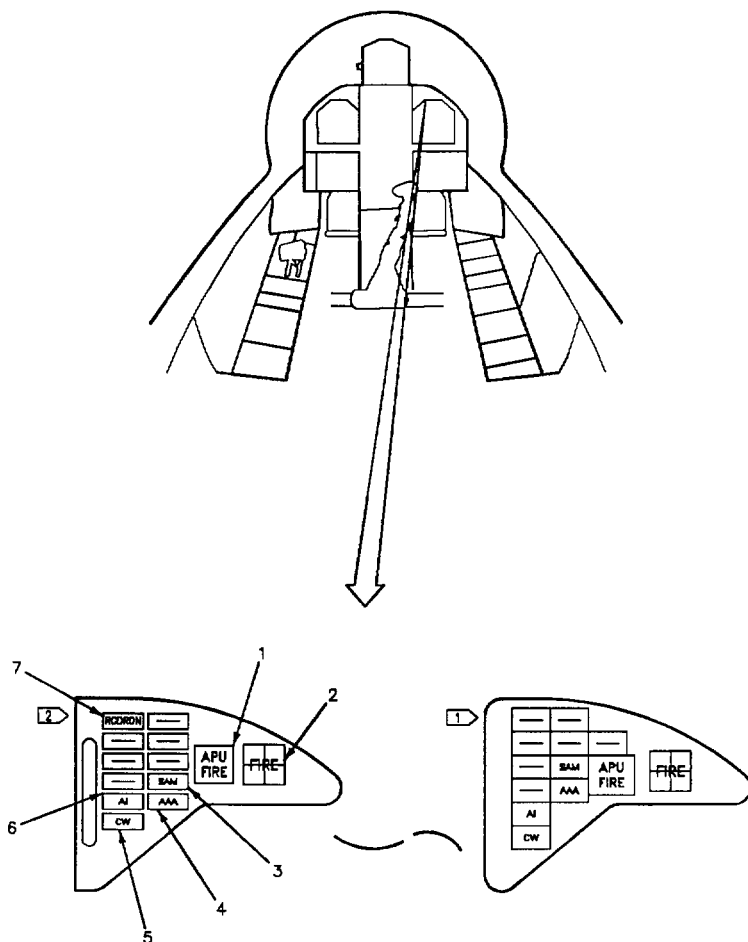


Figure 18. RH Advisory and Threat Warning Indicator Panel Indications (Sheet 1)




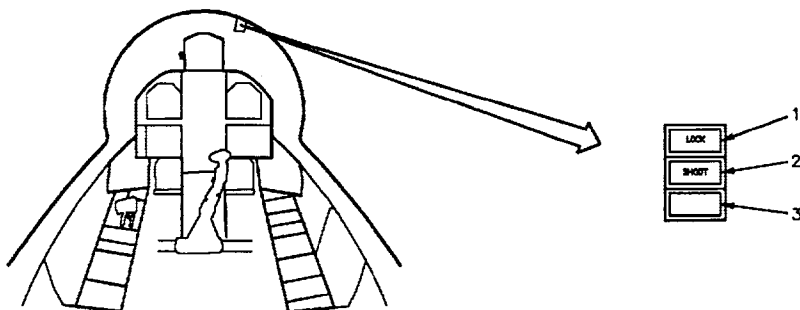
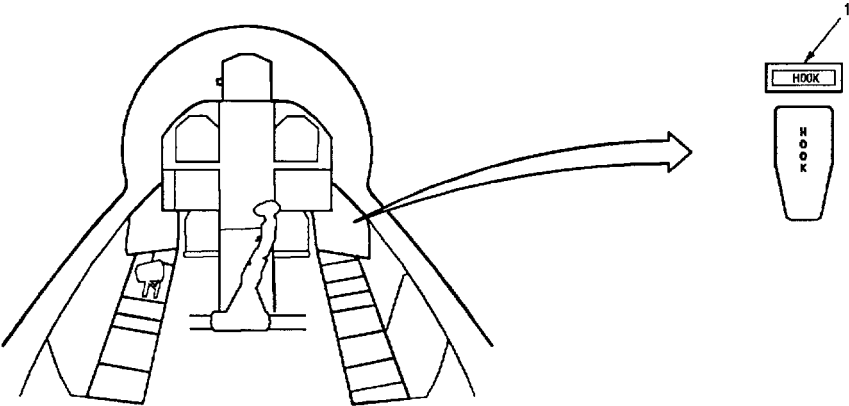
| Index | Indication | Description |
|---|--|---|
| 1 | APU FIRE | Red light on warns that a fire condition exists in APU bay (Loop A/Loop B Fire Detection System Schematic, A1-F18AC-240-500, WP009 00). |
| 2 | FIRE | Red light on warns that fire condition exists in right engine/AMAD bay (Loop A/Loop B Fire Detection System Schematic, A1-F18AC-240-500, WP009 00). |
| 3 | SAM | Indicates Countermeasures Computer CP-1293/ALR-67(V) has detected a surface to air missile (Controls, Displays, and Audio Schematic, A1-F18AC-760-500, WP015 00). |
| 4 | AAA | Indicates Countermeasures Computer CP-1293/ALR-67(V) has detected anti-aircraft artillery (Controls, Displays, and Audio Schematic, A1-F18AC-760-500, WP015 00). |
| 5 | CW | Indicates Countermeasures Computer CP-1293/ALR-67(V) has detected continuous wave (Controls, Displays, and Audio Schematic, A1-F18AC-760-500, WP015 00). |
| 6 | AI | Indicates Countermeasures Computer CP-1293/ALR-67(V) has detected an air intercept (Controls, Displays, and Audio Schematic, A1-F18AC-760-500, WP015 00). |
| 7 | RCDR ON  | When turned on, indicates Video-Recording System in operating (Video Selection and Recording Functional Schematic, A1-F18AC-770-500, WP006 00). |
| LEGEND | | |
|  1 | 161353 THRU 161528. | |
|  2 | 161702 AND UP. | |

Figure 18. RH Advisory and Threat Warning Indicator Panel Indications (Sheet 2)



| INDEX NO. | INDICATION | DESCRIPTION |
|-----------|--------------|---|
| 1 | LOCK | GREEN LIGHT ON WHEN RADAR IN TRACK AND NOT TRACK MEMORY (LOCK/SHOOT LIGHT/SHOOT CUE DISPLAY SCHEMATIC, A1-F18AC-740-500, WPO20 00). |
| 2 | SHOOT | FLASHING OR STEADY WHITE LIGHT ON WHEN SHOOT DISPLAY ON HUD DISPLAY (WPO07 00). (LOCK/SHOOT LIGHT/SHOOT CUE DISPLAY SCHEMATIC, A1-F18AC-740-500, WPO20 00). |
| 3 | SHOOT STROBE | HIGH INTENSITY WHITE STROBE ON WHEN SHOOT LIGHT ON AND INST. PNL DIMMER CONTROL ON INSTR LT CONTROL BOX PANEL ASSEMBLY IS IN DIM OR SET TO OFF. (LOCK/SHOOT LIGHT/SHOOT CUE DISPLAY SCHEMATIC, A1-F18AC-740-500, WPO20 00). |

Figure 19. Lock/Shoot Light Assembly Indications



| INDEX NO. | INDICATION | DESCRIPTION |
|-----------|------------|--|
| 1 | HOOK | RED LIGHT ON WHEN HOOK IN TRANSITION. OFF WHEN ARRESTING HOOK MANUAL CONTROL LEVER AND ARRESTING HOOK ARE IN THE SAME POSITION. (ARRESTING GEAR SYSTEM SCHEMATIC, A1-F18AC-130-500, WP010 00). |

Figure 20. Arresting Hook Control Indications

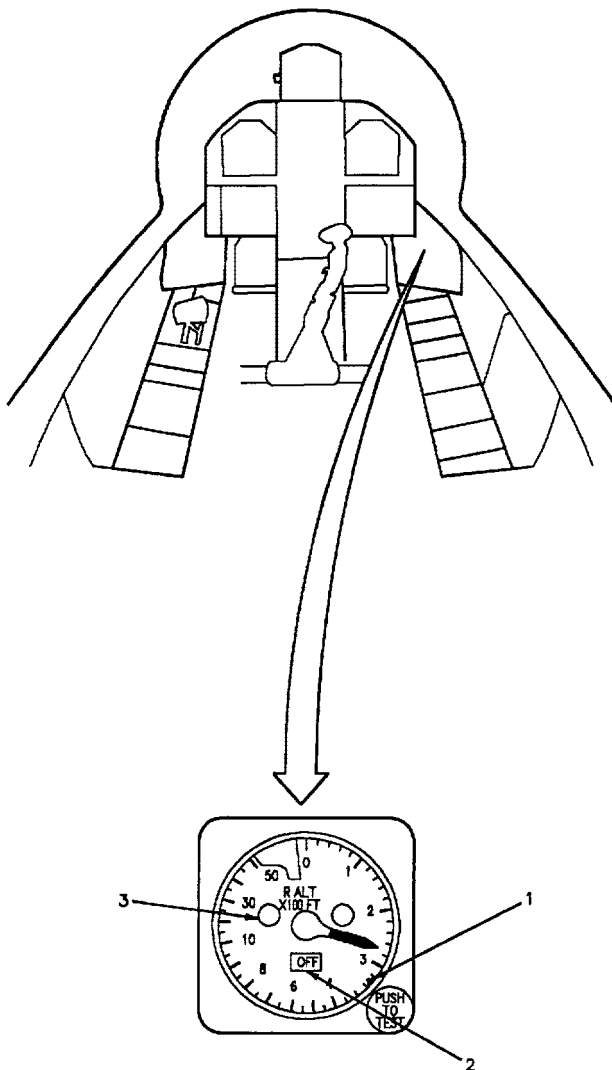
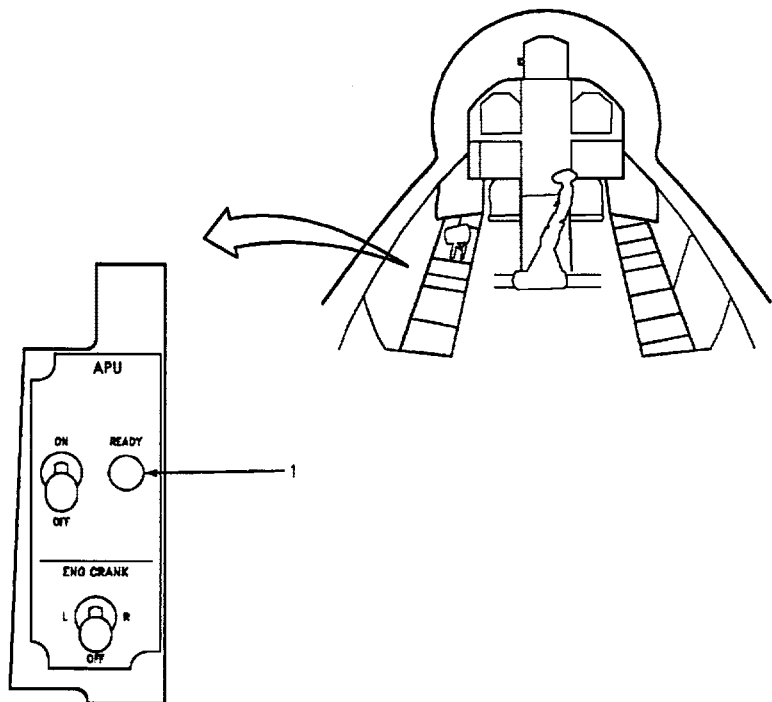


Figure 21. Height Indicator ID-2163/A Indications (Sheet 1)

| Index | Indication | Description |
|-------|--------------|--|
| 1 | Index | Positioned manually. Indicates Altitude at which low altitude warning light (3) comes on and altitude voice warning heard in headset (Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00). |
| 2 | OFF | Flag indicates: <ol style="list-style-type: none">1. Power off.2. Altitude indication not valid.3. Altitude above 5000 feet (Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00). |
| 3 | Low Altitude | Red light on and altitude voice warning heard in headset indicates altitude below index setting (1) (Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00). |

Figure 21. Height Indicator ID-2163/A Indications (Sheet 2)



| INDEX NO. | INDICATION | DESCRIPTION |
|-----------|------------|--|
| 1 | READY | GREEN LIGHT ON INDICATES THE APU IS ON LINE, FULL SPEED, AND READY TO LOAD (APU START SYSTEM SCHEMATIC, A1-F18AC-240-500, WP004 00). |

Figure 22. APU Control Panel Assembly Indications

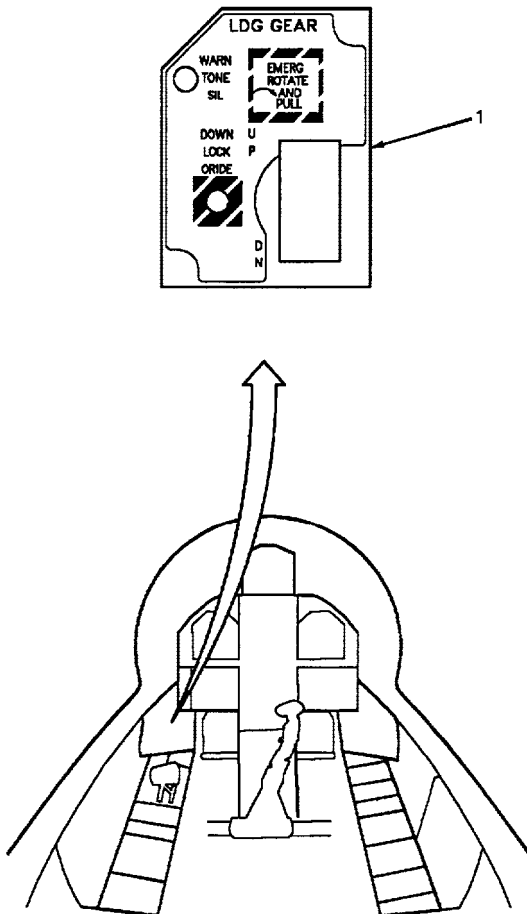


Figure 23. LDG Gear Control Indications (Sheet 1)




| Index | Indication | Description |
|--|--|---|
| 1 | <p>Red Light in gear handle:</p> <p> On steady 8.0 ± 1.5 seconds after power application or 60.0 ± 5.0 seconds after touchdown.</p> <p> On steady > 15.0 ± 3.0 seconds.</p> <p>On flashing</p> <p>Off</p> | <p>Indicates left or right planing link switch has failed BIT.</p> <p>Indicates planing link switch input to landing gear control unit was incorrect when control handle was set to DN. This condition is delayed until landing gear is down and locked.</p> <p>Indicates gear handle up, altitude less than 7500 feet, rate of descent more than 250 feet per minute, and airspeed less than 175 knots.</p> <p>Indicates all three landing gears in same position as gear handle and gears are locked. (Landing gear Warning and Position Indicating Schematic - F/A-18C, A1-F18AC-130-500, WP005 00).</p> |
| <p style="text-align: center;">LEGEND</p> <p> On Aircraft with landing gear control unit P/N 8-347-03 installed.</p> | | |

Figure 23. LDG Gear Control Indications (Sheet 2)

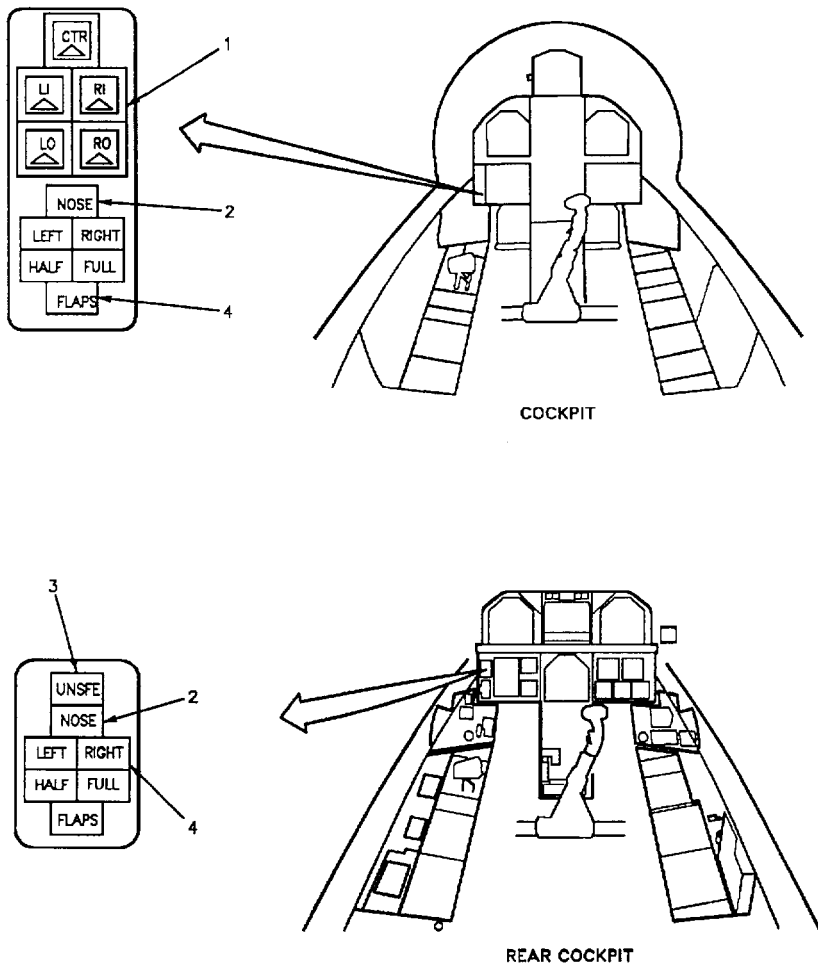


Figure 24. Flaps, Landing Gear and Stores Indicator Panel Indications (Sheet 1)

| Index | Indication | Description |
|---------------|--|--|
| 1 | JETT Station Select | Pressing switch causes center (CTR), left inboard (LI), left outboard (LO), right inboard (RI), or right outboard (RO) station selection for jettison of weapons. White light in switch indicates selection (Selective Jettison/Auxiliary Release Schematic, A1-F18AC-740-500, WP018 00). |
| 2 | NOSE/ RIGHT/ LEFT | <p>Green lights on indicates:</p> <ol style="list-style-type: none"> LDG GEAR Control handle DN and landing gear down and locked. <p>LEFT or RIGHT lights flashing indicate:</p> <ol style="list-style-type: none"> Related MLG down and locked and related planing link not locked. Related planing link switch failed BIT. Related planing link switch input to landing gear control unit was incorrect when LDG GEAR control was set to DN. This condition is delayed until landing gear is down and locked. (Landing gear Warning and Position Indicating Schematics, A1-F18AC-130-500, WP005 00). |
| 3 | UNSFE (ON) (OFF) | <p>Red light on indication description identical to Landing Gear Control handle indication (fig 23).</p> <p>Indicates gear in transition.</p> <p>Indicates all three landing gears in same position as gear handle and gears are locked (Landing Gear Warning and Position Indicating Schematic F/A-18B, A1-F18AC-130-500, WP005 00).</p> |
| 4 | HALF/ FULL/ FLAPS | <p>Green light on indicates:</p> <ol style="list-style-type: none"> Trailing edge flaps position is half or full. FLAP switch position is in HALF or FULL. <p>Yellow FLAPS light on indicates:</p> <ol style="list-style-type: none"> Trailing edge flaps position does not agree with FLAP switch position. Air datA and AOA failed with FLAP switch in auto position. Airspeed is greater than 243 knots and FLAP switch is in HALF or FULL position. Gain switch is in ORIDE position. Airspeed is less than 121 knots and either: (a) SPIN recovery switch is in RCVV position (b) yaw rate is greater than 15° per second for more than 7 seconds. Trailing or leading edge flaps failed. |
| LEGEND | | |
| 1 | 161353 THRU 161519. | |
| 2 | 161520 AND UP. | |
| 3 | On aircraft with landing gear control unit P/N 8-347-03 installed. | |

Figure 24. Flaps, Landing Gear and Stores Indicator Panel Indications (Sheet 2)

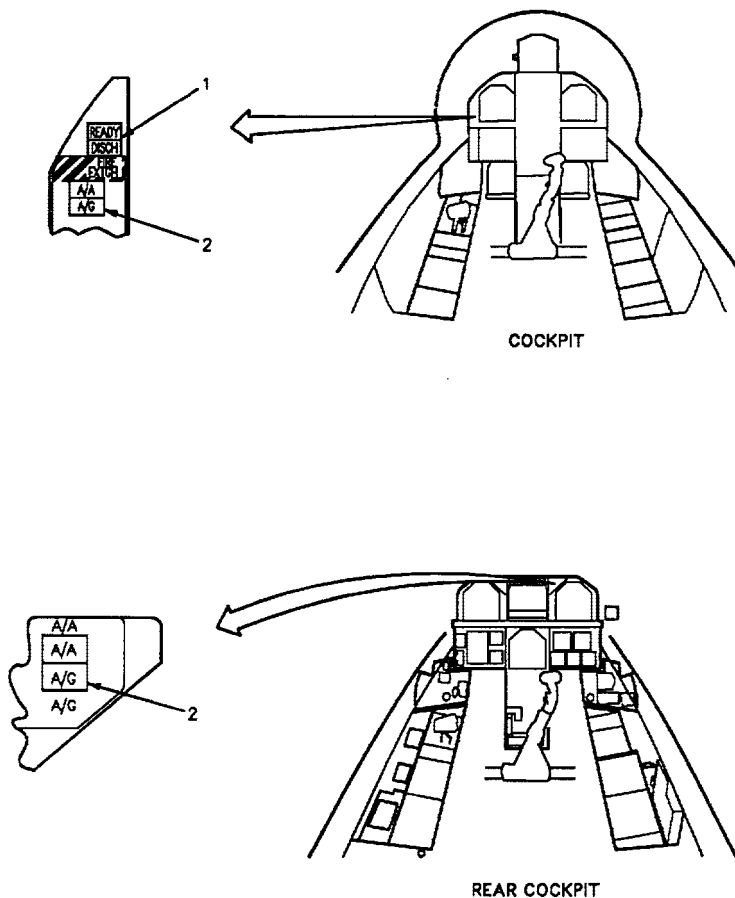
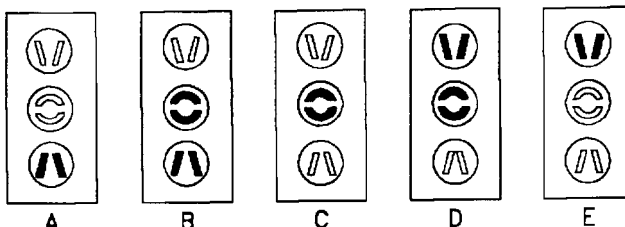
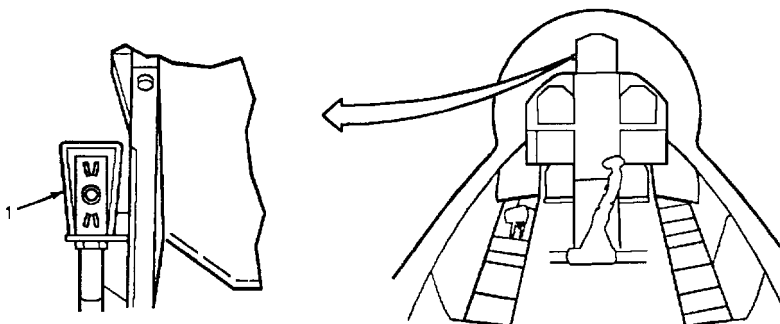


Figure 25. Master Arm Control Panel Assembly Indications (Sheet 1)

| Index | Indication | Description |
|-------|----------------|---|
| 1 | READY DISCH | When a fire condition is detected in any of the three detection areas (left engine, right engine, or APU bays), the correlating warning light comes on. Pressing this light/switch arms the fire extinguishing system and causes the yellow READY light to come on. Pressing the READY/DISCH switch discharges the fire extinguishing system and causes the green DISCH light to come on (APU Fire Extinguishing System Schematic, A1-F18AC-240-500, WP010 00). |
| 2 | A/A, A/G | These legends appear on two alternate action type pushbutton switches. A/A white light on when A/A master mode selected, A/G on when A/G master mode selected, both off in NAV master mode (Aircraft Master Mode Select Schematic, A1-F18AC-740-500, WP013 00). |

Figure 25. Master Arm Control Panel Assembly Indications (Sheet 2)



| INDEX NO. | INDICATION | DESCRIPTION |
|--|---|---|
| 1 | <p>DETAIL A</p> <p>DETAIL B</p> <p>DETAIL C</p> <p>DETAIL D</p> <p>DETAIL E</p> | <p>ALL DISPLAYS ENABLED WITH WEIGHT OFF WHEELS, GEAR DOWN AND LOCKED (AIR DATA COMPUTER SYSTEM ANGLE OF ATTACK FUNCTIONAL SCHEMATIC, (A1-F18AC-580-900, WPOOS 00).</p> <p>RED LIGHT ON INDICATES ANGLE OF ATTACK TO LOW (1) > 6.4° OR LESS, (2) > 6.9° OR LESS).</p> <p>RED LIGHT AND AMBER LIGHT ON INDICATES ANGLE OF ATTACK SLIGHTLY LOW (1) > 6.4° TO 6.9° (2) > 6.9° TO 7.4°).</p> <p>AMBER LIGHT ON INDICATES OPTIMUM ANGLE OF ATTACK (1) > 6.9° TO 8.1° (2) > 7.5° TO 8.8°).</p> <p>AMBER LIGHT AND GREEN LIGHT ON INDICATES ANGLE OF ATTACK SLIGHTLY HIGH (1) > 8.1° TO 8.9° (2) > 8.8° TO 9.3°).</p> <p>GREEN LIGHT ON INDICATES ANGLE OF ATTACK TOO HIGH (MORE THAN (1) > 8.9° (2) > 9.3°).</p> |
| <p style="text-align: center;">LEGEND</p> <p>(1) > 161353 THRU 161519.</p> <p>(2) > 161520 AND UP.</p> <p>3. NUMBERS REPRESENT LOCAL AOA AS SEEN AT AIR STREAM DIRECTION SENSING UNIT TRU-185/A BY MAINTENANCE PERSONNEL.</p> | | |

Figure 26. AOA Indexer Assembly Indications

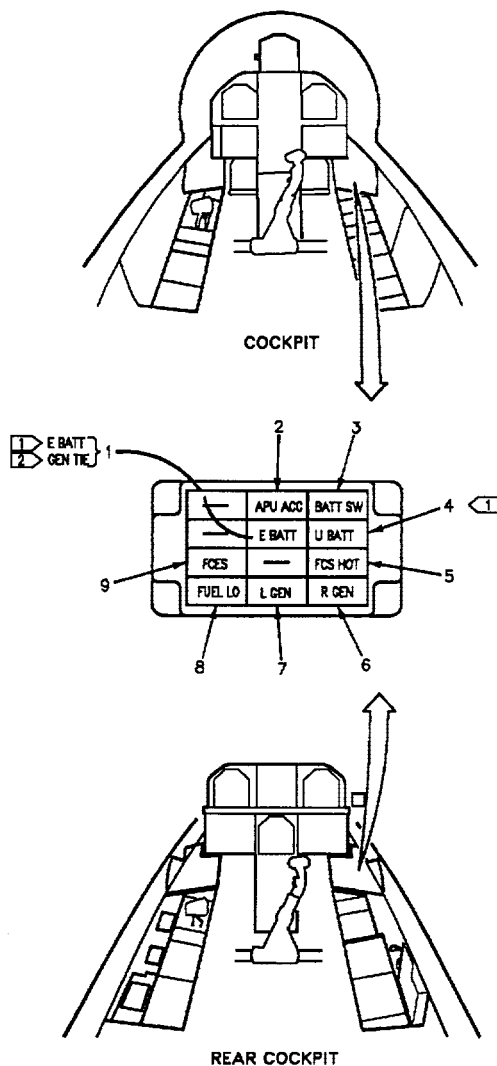


Figure 27. Caution Light Indicator Panel Indications (Sheet 1)






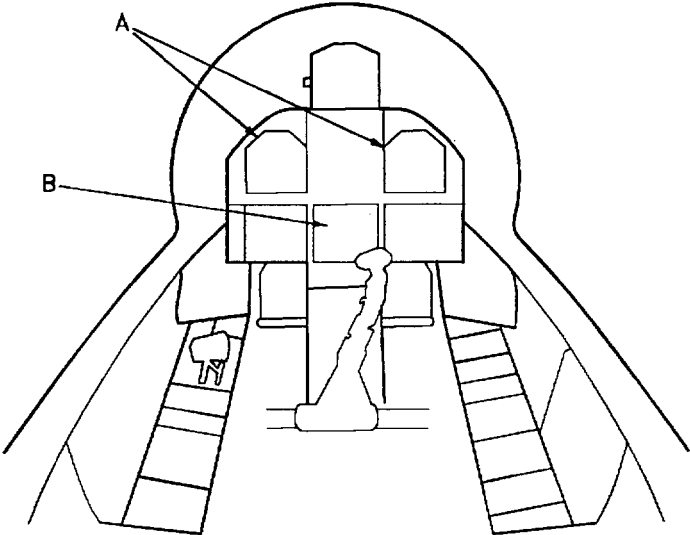
| Index | Indication | Description |
|-------|---|--|
| 1 |  E BATT  GEN TIE | <p>Yellow light on indicates emergency battery is in a low state of charge. Maintenance code 882 not set on ground. Do Battery Charging (A1-F18AC-PCM-000).</p> <p>Yellow light on in the air: Indicates loss of either left or right generator converter unit as a result of a bus failure (loss of either left or right 115vac bus). Do AC Power System Test, A1-F18AC-420-200, WP003 00.</p> <p>Yellow light on when on ground: With external electrical power applied, indicates ELEC power control panel assembly BATT switch is ON and park brake released (right 115vac bus not powered). Set park brake. If light remains on, do AC Power System Test, A1-F18AC-420-200, WP003 00.</p> <p>With internal electrical power applied (engines), indicates loss of either left or right generator converter unit as a result of a bus failure (loss of either left or right 115vac bus). Do AC Power System Test, A1-F18AC-420-200, WP003 00.</p> |
| 2 | APU ACC | Yellow light on indicates APU accumulator pressure required for an APU start is low (APU Start System Schematic, A1-F18AC-240-500, WP004 00). |
| 3 | BATT SW | <p>Yellow light on in the air:</p> <ol style="list-style-type: none"> 1. With either right, left or both generator converter units operating, indicates ELEC power control panel assembly BATT switch is set to ORIDE or OFF instead of ON position. (Automatic sequential battery connection will not occur if primary electrical power is lost). (DC Power System Schematic, A1-F18AC-420-500, WP004 00). 2. Indicates loss of both right and left generator converter units and operating on emergency power with BATT switch set to ON or ORIDE. (DC Power System Schematic, A1-F18AC-420-500, WP004 00). <p>Yellow light on when on ground:</p> <ol style="list-style-type: none"> 1. With electrical power removed, indicates ELEC power control panel assembly BATT switch is set to ON or ORIDE, which may result in battery discharge, (DC Power System Schematic, A1-F18AC-420-500, WP004 00). 2. With electrical power applied, indicates ELEC power control panel assembly BATT switch is set to ORIDE or OFF (DC Power System Schematic, A1-F18AC-420-500, WP004 00). |
| 4 |  U BATT | Yellow light on indicates utility battery is in a low state of charge. Maintenance code 880 not set on ground. Do Battery Charging (A1-F18AC-PCM-000). |
| 5 | FCS HOT | <p>Yellow light on indicates Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA), or Right Power Supply PP-7612/A are under cooled (Avionics Cooling System Schematic - Except Cockpit A1-F18AC-410-500, WP009 00 and Caution and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). (For troubleshooting procedure refer to  table 1, A1-F18AC-570-210, WP008 00  table 4, A1-F18AC-570-220, WP028 01).</p> |

Figure 27. Caution Light Indicator Panel Indications (Sheet 2)

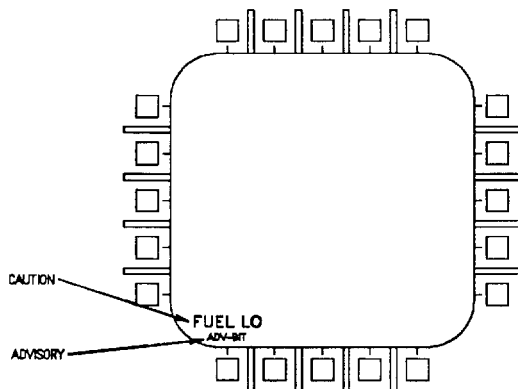
| Index | Indication | Description |
|---------------|---------------------|--|
| 6 | R GEN | Yellow light on indicates no output from right generator converter unit. (AC Power System Schematic, A1-F18AC-420-500, WP004 00). For troubleshooting, see table 2, WP005 00. |
| 7 | L GEN | Yellow light on indicates no output from left generator converter unit. (AC Power System Schematic, A1-F18AC-420-500, WP003 00). For troubleshooting, see table 2, WP005 00. |
| 8 | FUEL LO | Yellow light on indicates no more than 800 lbs fuel in at least one of the feed tanks will remain on for a minimum of 1 minute (Low Level Warning System Schematic, A1-F18AC-460-500, WP013 00). |
| 9 | FCES | Yellow light on indicates a failure has been detected by the Electronic Flight Control System (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| LEGEND | | |
| 1 | 161353 THRU 161528. | |
| 2 | 162394 AND UP. | |
| 3 | 161353 THRU 161519. | |
| 4 | 161520 AND UP. | |

Figure 27. Caution Light Indicator Panel Indications (Sheet 3)

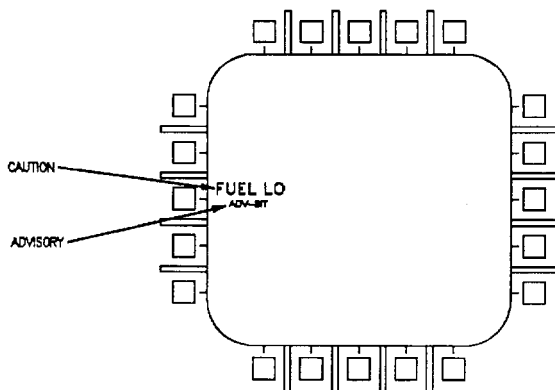


| INDICATOR IN OPERATION | | | CAUTIONS/ADVISORIES DISPLAYED | | |
|------------------------|------|----|-------------------------------|------|----|
| LDDI | RDDI | HI | LDDI | RDDI | HI |
| ● | ● | ● | ● | | |
| ● | ● | | ● | | |
| ● | | ● | | | ● |
| ● | | | ● | | |
| | ● | ● | | | ● |
| | ● | | | ● | |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 1)



A



B

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 2)

| Indication (Ref Code) | Description |
|---|--|
| <p style="text-align: center;">NOTE</p> <p>On Left or Right Digital Display Indicator (LDDI/RDDI), display starts at bottom left of indicator. On Horizontal Indicator IP-1350/A (HI), display starts at center left of indicator. Advisories are displayed on the first line (preceded by ADV-) and cautions starting on next line and building up.</p> | |
| ADVISORIES | |
| 7 ➞ ALIGN | When displayed with an X superimposed indicates that a complete alignment has not been done. The advisory can be removed by completing the alignment, by doing an in flight alignment (IFA), or by switching out of NAV (navigation) mode into AHRs (gyro) mode. |
| 2 ➞ A/P (SLADVD) | Indicates heading hold is the only autopilot function engaged (Autopilot Functional Schematic, A1-F18AC-570-500, WP030 00). |
| 7 ➞ AM DL | Indicates radar AMRAAM software installed with no AMRAAM hardware (Periodic Built-in-Test (PBIT) Schematic. A1-F18AC-742-500. WP014 00). |
| ATTH (SLADVD) | Indicates autopilot Attitude Hold is engaged (Autopilot Functional Schematic, A1-F18AC-570-500, WP030 00). |
| BALT (SLADVD) | Indicates autopilot Barometric Altitude Hold is engaged (Autopilot Functional Schematic, A1-F18AC-570-500, WP030 00). |
| BIT (SLADVB) | Indicates built-in test failure. BIT control display should be selected to identify system/WRA. |
| CPLD (SLADVD) | Indicated autopilot is coupled to data link system Automatic Carrier Landing (ACL), Traffic Control (TC), or Vector (VEC) modes. |
| 7 ➞ COM1H | Indicates AN/ARC-210 COMM1 is not loaded with Have Quick time. (COMM 1 Have Quick Mode and Manual Fill Mode Functional Schematic. A1-F18AC-600-500. WP005 03). |
| 7 ➞ COM2H | Indicates AN/ARC-210 COMM2 is not loaded with Have Quick time. (COMM 2 Have Quick Mode and Manual Fill Mode Functional Schematic. (A1-F18AC-600-500, WP006 03). |
| 7 ➞ COM1S | Indicates AN/ARC-210 COMM1 is not loaded with Singars time. (COMM 1 Singars Mode and Electronic Remote Fill Mode Functional Schematic. A1-F18AC-600-500. WP005 04). |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 3)

| Indication (Ref Code) | Description |
|------------------------------|--|
| 7 COM2S | Indicates AN/ARC-210 COMM2 is not loaded with Sincgars time. (COMM 2 Sincgars Mode and Electronic Remote Fill Mode Functional Schematic, A1-F18AC-600-500, WP006 04). |
| 7 CONFIG | Indicates that systems which should have been checked for software compatibility have not been checked due to inability to communicate with the system on the mux since power turn on. INS, radar, SMS, ADC, SDC, MU, CSC, CLC, DMS). |
| 2 CRUIS (SLADVB) | Indicates that GAIN switch on FCS Control Panel C-10406/ASW-44 is set to ORIDE and FLAP switch on LH vertical console control panel is set to AUTO (Cross Channel/Mux Bus/Displays Functional Schematic, A1-F18AC-570-500, WP021 01). |
| FUEL (SLADVB) | Indicates FUEL LO, BINGO, or CG caution did not pass Fuel System BIT within 15 seconds of initiation and the failed caution was not displayed. Caution not displayed: FUEL LO - Do table 2 (A1-F18AC-460-200, WP026 00). BINGO - Do table 4 (A1-F18AC-460-200, WP025 00). CG - On 161520 AND UP - Do table 2 (A1-F18AC-460-200, WP035 00). |
| HSEL (SLADVD) | Indicates autopilot Heading Select option is engaged. (Autopilot Functional Schematic, A1-F18AC-570-500, WP030 00). |
| L HEAT R HEAT (SLADVB) | Indicates left or right engine anti-ice system is operating and using bleed air (Anti-icing System Schematic, A1-F18AC-270-500, WP005 00). |
| 2 LAND (SLADVB) | Indicates that GAIN switch on FCS Control Panel C-10406/ASW-44 is set to ORIDE and FLAP switch on LH vertical console control panel is set to HALF or FULL (Cross Channel/Mux Bus/Displays Functional Schematic, A1-F18AC-570-500, WP021 01). |
| LOAD (SLADVB) | Displayed with superimposed X when: a. Fuzing code incompatible with weapon. b. Store present with wrong store code selected. c. Store ident, signal incorrect for store code. d. Any store (except conventional non-LG bomb) on incorrect station. e. Rocket pod aboard without VER rack. f. Bomb only on outboard side of VER (wing pylon). g. Rack/store ident with no store aboard BRU-32 (Parent rack). h. An invalid nose fuze code for a shrike. (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| M4 OK (SLADVB) | Indicates replies are being transmitted in response to mode 4 interrogations (Mode 4 Functional Schematic, A1-F18AC-600-500, WP020 00). |
| RALT (SLADVD) | Indicates autopilot Radar Altitude Hold is engaged. |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 4)

| Indication (Ref Code) | Description |
|----------------------------|--|
| 2 ➔ RSET (SLADVB) | Indicates a FCS failure has reset when RESET switch is pressed on FCS Control Panel C-10406/ASW-44. RSET with an X superimposed through it indicates a FCS failure did not reset when RESET switch is pressed on FCS Control Panel C-10406/ASW-44 (Cross Channel/Mux Bus/Displays Functional Schematic, A1-F18AC-570-500, WP021 01). |
| SKID (SLADVB) | Displayed when ANTI SKID switch is OFF and landing gear handle is down (Wheel, Brake and Anti-Skid Schematic, A1-F18AC-130-500, WP008 01). |
| TRIM (SLADVB) | Indicates flight control surfaces are in the takeoff position (Cross Channel/Mux Bus/Displays Functional Schematic, A1-F18AC-570-500, WP021 01). |
| CAUTIONS | |
| 2 ➔ AIL OFF (PLCT 10) | Indicates that one or both ailerons are deenergized (off). |
| 7 ➔ AIR DATA | Displayed when mission computers have executed a cold start, air speed is less than 80 knots, and the requirement for source error correction has been determined; or FCS and control converter do not agree on aircraft configuration (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| ANTISKID (PLCAT7) | Displayed if landing gear down, ANTI SKID switch ON (LH Vertical Console Control Panel), and a detected anti skid failure exists (Wheel Brake and Anti Skid System Schematic, A1-F18AC-130-500, WP008 01). For troubleshooting, see table 39, WP005 00. |
| 7 ➔ AOA DEGD | Pilot has selected a single probe as his source of AOA. Problem selecting a single AOA probe causes a discrepancy between the AOA bracket on the HUD and the indexer approach lights. |
| APU ACCUM (PLCAT4) | Indicates that the APU accumulator pressure required for starting the APU is low (APU Start System Schematic, A1-F18AC-240-500, WP004 00). For servicing APU accumulator, refer to A1-F18AC-PCM-000, WP015 00). For troubleshooting, see table 7, WP005 00). |
| 2 ➔ AUTO PILOT (PLCAT7) | Indicates a failed engagement try for autopilot or Data Link outer-loop modes, a disengagement for any reason except pilot actuation of autopilot/nosewheel steering disengage switch on Control Stick Grip Adapter Assembly, or pilot deselection by way of the Electronic Equipment Control C-10380/ASQ. Caution is removed when autopilot/nosewheel steering disengage switch is actuated (Autopilot Functional Schematic, A1-F18AC-570-500, WP030 00). |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 5)

| Indication (Ref Code) | Description |
|--|--|
| AV AIR DGD (PLCT11) | Displayed during canopy locked and weight off wheels conditions when cabin exit air pressure is low for 60 seconds, or when either the cabin exit air controller or exit air regulator valve fails. For troubleshooting see A1-F18AC-410-200, WP086 00, WP087 00, or WP088 00, (Avionics Cooling System Schematic, except Cockpit-163092 AND UP, A1-F18AC-410-500, WP009 00). |
| AV AIR HOT (PLCAT6) | Indicates avionic cooling has been lost or reduced below required levels because of ECS malfunction or low bleed pressure. For troubleshooting, see table 8, WP005 00. |
| BATT SW (PLCAT6) | In the air, indicates automatic sequential battery connection will not occur if primary electrical power is lost. On the ground, indicates BATT switch is OFF or ORIDE (DC Power System Schematic, A1-F18AC-420-500, WP004 00). For troubleshooting, see table 2, WP005 00. |
| BINGO (PLCAT5) | Indicates amount of fuel is below level set on FUEL QTY indicator. Also set during fuel BIT test (Fuel Quantity Gaging System Schematic, A1-F18AC-460-500, WP012 00). For troubleshooting, see table 10, WP005 00. |
| BRK ACCUM (PLCAT4) | Indicates brake accumulator pressure is low (Wheel Brake and Anti Skid System Schematic, A1-F18AC-130-500, WP008 01). For troubleshooting, see table 39, WP005 00. |
| CANOPY (PLCAT4) | Indicates canopy is not in the locked position or canopy is open (Canopy System Schematic - F/A-18A, A1-F18AC-120-500, WP006 00 or Canopy System Schematic - F/A-18B, A1-F18AC-120-500, WP007 00). |
| CAUT DEGD (PLCAT1) | Indicates system is not fully able to report caution/advisory status because of Signal Data Recorder total terminal fail or failure of one or more of the below: <ol style="list-style-type: none"> 1. Signal Data Recorder RO-508/ASM-612 CPU 2. Signal Data Recorder RO-508/ASM-612 link terminal 3. Signal Data Converter CV-3493/ASM-612 CPU 4. Signal Data Converter CV-3493/ASM-612 link terminal (Built-In Test Schematic, A1-F18AC-550-500, WP012 00). |
| <div> <div>2</div> <div>CG (PLCAT8)</div> </div> | Indicates no. 1 and no. 4 fuel tank fuel amounts are not within predefined limits. Limits are part of fuel quantity gaging system intermediate device (ID) circuitry. The ID removes caution ground when limit is exceeded, enabling the caution. Caution also set during fuel BIT test (CG System Schematic, A1-F18AC-460-500, WP014 00). For troubleshooting, see table 10, WP005 00. |
| CHECK TRIM (PLCT12) | Indicates that the horizontal stabilators are not trimmed for takeoff (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 6)

| Indication (Ref Code) | Description |
|--------------------------|---|
| CNI (PLCAT1) | Indicates Control-Converter C-10382/A (CSC) interface failure caused by Control-Converter total terminal fail or one or more of the below: <ol style="list-style-type: none"> 1. CSC FAIL UFC POWER 2. CSC FAIL UFC SERIAL 3. CSC FAIL CSC POWER 4. CSC FAIL CPU 5. CSC FAIL RAM 6. CSC FAIL ROM 7. CSC FAIL CORE (Control Converter C-10382/A Built-In Test Schematic, A1-F18AC-741-500, WP010 00). |
| 7 CK FLAPS | Indicates the FLAPS switch has been placed in the AUTO position before take off (flaps not in the takeoff position). The caution is cleared when the flaps are in position for takeoff or the aircraft is in flight (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| 2 DEL ON (PLCT10) | Indicates one or more of the pitch, roll, and yaw axes has reverted from CAS to DEL control (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| DUMP OPEN (PLCAT8) | Indicates fuel dump valve remains open when commanded closed. Do table 1 (Fuel Dump System Test, A1-F18AC-460-200, WP022 02). |
| 3 E BATT LO (PLCAT6) | Indicates emergency battery is in a low state of charge. Maintenance code 882 not set on ground. Do Battery Charging (A1-F18AC-PCM-000). |
| EXT TANK (PLCAT8) | Indicates external tank(s) pressurized while on the ground. Caution is not displayed inflight (External Fuel System Schematic, A1-F18AC-460-500, WP006 00). For troubleshooting, do Pressure Switches Test (A1-F18AC-460-200, WP010 00). |
| 7 EXT XFER | Indicates that any external tank has more than 200 pounds of fuel left after bingo fuel level with aircraft in stable flight (External Fuel System Caution and Maintenance Code Schematic, A1-F18AE-460-500, WP013 00). |
| 2 FC AIR DAT (PLCAT7) | Indicates Air Data Sensor DT-600/ASW-44 impact pressure signals or static pressure signals do not agree (Cautions and BIT Displays Schematic, A1-F18AC-570-200, WP005 06). Indicates Air Data Sensor DT-600/ASW-44 impact pressure signals or static pressure signals do not agree (Cautions and BIT Displays Schematic, A1-F18AC-570-200, WP005 06). |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 7)






| Indication (Ref Code) | Description |
|--|--|
| FCS (PLCAT3) | <p>Indicates a flight control failure. Observe FCS display for X's. When two or more channels are X'ed, do table 1 (Troubleshooting-Maintenance/BLIN Codes, A1-F18AC-570-200, WP007 00).</p> <p>When an X in a single channel, press RESET switch on FCS Control Panel C-10406/ASW-44. If RSET is displayed, run FCS maintenance IBIT. When BIT status message is GO, release Aircraft for flight. If RSET is overlayed with an X or the same channel is X'ed on the next flight, do table 1 (Troubleshooting- Maintenance/ BLIN Codes, A1-F18AC-570-200, WP007 00).</p> |
| FCS HOT (PLCAT6) | <p>Indicates Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA or FCCB), or Right Power Supply under-cooled (Avionics Cooling System Schematic - Except Cockpit, A1-F18AC-410-500, WP009 00 or Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00).</p> <p>For troubleshooting procedure refer to:</p> <p> table 1 (A1-F18AC-570-210, WP008 00).</p> <p> table 4 (A1-F18AC-570-220, WP028 01).</p> |
|  FCS 1ST (PLCAT1) | Indicates a FCS first failure exists and no FCS second or third failures exist (inhibited if FCS second like failure exists, or mode reversion has occurred in pitch roll or yaw) (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|  FCS 2ND (PLCAT3) | Indicates FCS is one failure away from loss of function. In the case of the quad functions this represents a second like failure and in the case of triple redundant functions a first failure (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|  FLAP SCHED (PLCT10) | Indicates a pitot/static and/or AOA failure exists (Cautions and BIT Displays Schematic A1-F18AC-570-500, WP024 00). |
| FLAPS OFF (PLCAT2) | Indicates a failure has occurred in the flap control loop so that LEF and/or TEF does not respond to FCES commands (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| FLIR OVRHT (PLCT12) | Indicates the FLIR has detected an internal overheat condition. (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). For troubleshooting do table 4 (A1-F18AC-744-200, WP005 00). |
| FUEL LO (PLCAT4) | Indicates fuel in either feed tank has decreased to 800 pounds. Also set during fuel BIT test (Fuel Low Level Warning System Schematic, A1-F18AC-460-500, WP013 00). For troubleshooting, see table 10, WP005 00. |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 8)













| Indication (Ref Code) | Description |
|---|---|
|  FUEL XFER | Indicates no. 1 and no. 4 fuel tank fuel amounts are not within predefined limits. (Do table 1. A1-F18AC-460-200, WP012 00; (Internal Fuel Transfer System Maintenance Code Schematic, A1-F18AC-460-500, WP007 00). |
|  FX GAIN (PLCAT2) | Indicates that pitot/static and/or AOA failures exist so that related FCS scheduling is not being done (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|   GPS | Refer to A1-F18AC-710-200, WP015 00. |
|   GPS DEGD | Refer to A1-F18AC-710-200, WP015 00. |
| GUN GAS (PLCAT8) | Indicates the lack of enough purge air pressure on the gun purge ejector (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00). For troubleshooting, do table 4 (A1-F18AC-750-200, WP006 00). |
|  G-LIM OVRD (PLCT11) | Indicates that the G limiter function of the FCS has been overridden by pilot Action (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|  G-LIM 7.5G (PLCT11) | Indicates that the G limiter function of the FCS has defaulted to 7.5G's due to an invalid Nz Ref (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). For troubleshooting procedure, do WP043 00, table 3, A1-F18AC-570-220. |
|  HOME FUEL | Indicates pilot selected lbs. of fuel remains to fly to home waypoint at the present maximum endurance flight parameters as calculated by the flight performance advisory system (FPAS) or the total fuel drops below 2500 lbs. HOME FUEL caution is disabled when the refueling probe is extended, the aircraft is weight on wheels, the landing gear has cycled from down to up to down, or for 5 seconds after a new home waypoint is selected. Home waypoint must be stable for 5 seconds to enable the HOME FUEL caution logic. The home waypoint is X'ed out and the increment and decrement arrows are removed when FPAS cannot calculate home fuel. |
| HYD 1A HYD 1B (PLCAT4) | Indicates that a loss of pressure has occurred in the hydraulic branch or branches powered by the left engine (Hydraulic System Schematic, A1-F18AC-450-500, WP003 00). |
| HYD 2A HYD 2B (PLCAT4) | Indicates that a loss of pressure has occurred in the hydraulic branch or branches powered by the right engine (Hydraulic System Schematic, A1-F18AC-450-500, WP003 00). |
| IFF 4 (PLCAT7) | Indicates no response to Mode 4 interrogation, Mode 4 codes have zeroed, or a fault in Computer-Transponder KIT-1A/SEC (Mode 4 Functional Schematic, A1-F18AC-600-500, WP020 00). |
|  IFF OVRHT | Indicates overheat condition detected in the Combined Interrogator Transponder (CIT). (Do table 6, A1-F18AC-600-200, WP055 00). |
| INLET ICE (PLCAT3) | Indicates icing conditions in the engine inlet (Inlet Ice Detector Schematic, A1-F18AC-270-500, WP009 00). |
| INS ATT (PLCAT1) | Indicates INS is not providing reliable attitude reference (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). For troubleshooting, see table 16, WP005 00. |
|   INS ATT | Refer to A1-F18AC-710-200, WP015 00. |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 9)

| Indication (Ref Code) | Description |
|--|---|
| <div>6</div> <div>INS DEGD</div> <div>INS VEL (PLCT12)</div> <div>LADDER (PLCAT3)</div> <div>L AMAD R AMAD (PLCAT8)</div> <div>L AMAD PR R AMAD PR (PLCT 10)</div> <div>L ATS R ATS (PLCAT9)</div> <div>L BLD OFF R BLD OFF (PLCAT9)</div> <div>L BOOST LO R BOOST LO (PLCAT5)</div> <div>L DUCT DR R DUCT DR (PLCAT3)</div> <div>L EGT HIGH R EGT HIGH (PLCAT0)</div> <div>L FLAMEOUT R FLAMEOUT (PLCAT9)</div> <div>L FUEL HOT R FUEL HOT (PLCAT5)</div> <div>L GEN R GEN (PLCAT6)</div> | <p>INS BIT has detected a failure during periodic BIT, INS IBIT should be performed to isolate the failure. (Do Initiated BIT, A1-F18AC-730-200, WP005 00).</p> <p>Indicates a discrepancy exists between the Inertial Navigation System (INS) and the Air Data Computer (ADC) vertical velocities. Not set when air refueling probe is extended. (Navigation, Velocity, Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00).</p> <p>Indicates ladder is not in the stowed position (Boarding Ladder System Schematic, A1-F18AC-120-500, WP009 00).</p> <p>Indicates oil over-temperature condition exists in left or right AMAD. For troubleshooting, see table 7 or table 10, WP005 00.</p> <p>Indicates low oil pressure exists in left or right AMAD and the applicable engine should be shut down. (Cautions and Maintenance Codes Schematic, A1-F18AC-240-500, WP005 00). For troubleshooting, see table 7, WP005 00.</p> <p>Indicates left or right air turbine starter is engaged after left/right engine is running and an air turbine starter overspeed condition may soon exist (Cautions and Maintenance Codes Schematic, A1-F18AC-240-500, WP005 00).</p> <p>Indicates an uncommanded left or right engine bleed air shutoff (Bleed Do troubleshooting procedure (A1-F18AC-410-200, WP083 00).</p> <p>Indicates the fuel pressure at the left or right boost pump is low (Engine Fuel Supply System Schematic, A1-F18AC-460-500, WP008 00). For troubleshooting, see table 10, WP005 00.</p> <p>Indicates the left or right duct door is open at less than mach 1.23 or closed at greater than mach 1.33 (Inlet Bleed Air Door System Schematic, A1-F18AC-270-500, WP009 00). For troubleshooting, see A1-F18AC-270-200, WP019 00.</p> <p>Indicates the left or right engine EGT is high (EGT Indicating System Schematic, A1-F18AC-270-500, WP007 00).</p> <p>Indicates engine RPM has dropped below 60% or compressor discharge pressure has dropped below 20 psia (Flameout Caution and Maintenance Code Schematic, A1-F18AC-270-500, WP010 00). For troubleshooting, see table 4, WP005 00.</p> <p>Indicates the temperature of the fuel being supplied to the engine exceeds 175°F (Hot Fuel Recirculation System Schematic, A1-F18AC-460-500, WP010 00). For troubleshooting, see table 10, WP005 00.</p> <p>Indicates no generator output. For troubleshooting, see table 2, WP005 00.</p> |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 10)

| Indication (Ref Code) | Description |
|--------------------------------------|---|
| L IN TEMP R IN TEMP (PLCAT0) | Indicates left/right inlet temperature fail. For troubleshooting, see table 4, WP005 00. |
| L OIL PR R OIL PR (PLCAT9) | Indicates engine oil pressure low or high (Oil Pressure Indicating System Schematic, A1-F18AC-270-500, WP007 00). |
| L OVRSPD R OVRSPD (PLCAT0) | Indicates engine overspeed (RPM Indicating System Schematic, A1-F18AC-270-500, WP007 00). |
| L PITOT HT R PITOT HT (PLCAT7) | Indicates left or right pitot heater not operating. Do Pitot Static System Heaters Test, A1-F18AC-510-200, WP003 00. |
| L STALL (P14B15) | Indicates left engine had stalled. Do table 7 (A1-F18AC-270-200, WP006 01). |
| R STALL (P14B13) | Indicates right engine had stalled. Do table 7 (A1-F18AC-270-200, WP006 01). |
| MC CONFIG (PLCT11) | Indicates Digital Data Computer No. 1 and No. 2 operational flight programs are not communicating correctly because of one of the following: <ol style="list-style-type: none"> 1. Digital Data Computer No. 1 operational flight program loaded in Digital Data Computer No. 2 (A1-F18AC-SCM-000). 2. Digital Data Computer No. 2 operational flight program loaded in Digital Data Computer No. 1 (A1-F18AC-SCM-000). 3. Customer discretes of Digital Data Computer No. 1 and No. 2 do not match (Digital Data Computer No. 1 and No. 2 Interconnect Schematic, A1-F18AC-741-500, WP008 00). Digital Data Computer No. 1 and No. 2 Cautions, Advisory and Maintenance Codes Schematic (A1-F18AC-741-500, WP013 00) may be used for troubleshooting. |
| MC 1 (PLCAT4) | Indicates Digital Computer No. 1 has failed. Do Power Up Test (A1-F18AC-741-200, WP003 00). |
| MC 2 (PLCAT1) | Indicates Digital Computer No. 2 has failed. Do Power Up Test (A1-F18AC-741-200, WP003 00). |
| MECH ON (PLCAT1) | Indicates that control has reverted to the mechanical mode (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 11)

| Indication (Ref Code) | Description |
|--------------------------|---|
| 8 9 NAV HVEL | Refer to A1-F18AC-710-200, WP015 00. |
| 8 9 NAV NVEL | Refer to A1-F18AC-710-200, WP015 00. |
| NWS (PLCAT2) | Indicates malfunction in nose wheel steering system (Schematic Cautions and BIT Displays, A1-F18AC-570-500, WP024 00). |
| 7 OCS | Indicates MC or SMS overlay halted due to run time. |
| OXY LO (PLCAT7) | Indicates LOX remaining is below 10% (Oxygen System Schematic, A1-F18AC-410-500, WP016 00). |
| PARK BRAKE (PLCAT7) | Indicates emergency/park brake set, both engines on 161353 THRU 161528 PLA $\geq 56^\circ$, or on 161702 AND UP PLA 260° engine throttle settings valid, and INS and FCS communicating on MUX with MC (Wheel Brake and Anti Skid System Schematic, A1-F18AC-130-500, WP008 01). |
| 8 9 PCODE | Refer to A1-F18AC-710-200, WP015 00. |
| 1 P DEL ON (PLCAT1) | Indicates that pitch control has reverted from CAS to DEL (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| 8 9 P/INS | Refer to A1-F18AC-710-200, WP015 00. |
| POS/ADC (PLCT11) | Displayed when INS reverts to ADC position keeping or during INS align while INS is in POS/ADC (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 8 9 POS/ADC | Refer to A1-F18AC-710-200, WP015 00. |
| PROBE UNLK (PLCAT5) | Indicates that air refueling probe is not secured when commanded to retract position (Inflight Refueling System Schematic, A1-F18AC-460-500, WP005 00). For trouble-shooting see table 10, WP005 00. |
| 1 R DEL ON (PLCAT2) | Indicates that roll control has reverted from CAS to DEL (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 12)



| Indication (Ref Code) | Description |
|--|--|
| R-LIM OFF (PLCAT2) | Indicates Automatic restriction of roll rate is no longer being done because of external store configuration (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|  R OFF (PLCAT2) | Indicates that roll CAS and roll DEL modes are disengaged (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|  RUD OFF (PLCT10) | Indicates one or both rudders are deenergized by the FCS (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| S/W CONFIG (PLCT11) | <p>WITH DIGITAL DATA COMPUTER CONFIG/IDENT 89A (A1-F18AC-SCM-000) - displayed when one of the below exist:</p> <ol style="list-style-type: none"> 1. MC1 and MC2 Operational Flight Programs (OFP) are not compatible with each other. 2. The radar OFP is not 89X - OFP. 3. The SMS OFP is not 89A - OFP. 4. The INS OFP is not 84B02. 5. The CSC OFP is not 89X when CSC configuration word (IKBCFG) is greater than 5 (-111 or -113 CSC). 6. The flight control computers are not compatible with each other. 7. The flight control computers are not compatible with the throttle sensitivity modification. <p>WITH DIGITAL DATA COMPUTER CONFIG/IDENT 87X (A1-F18AC-SCM-000) - displayed when one of the below exist:</p> <ol style="list-style-type: none"> 1. MC1 and MC2 Operational Flight Programs (OFP) are not compatible with each other. 2. The radar OFP is not 87X - OFP. 3. The SMS OFP is not 87D - OFP. 4. The INS OFP is not 84B02. 5. The flight control computers are not compatible with each other. 6. The flight control computers are not compatible with the throttle sensitivity modification. <p>Digital data computer no. 1 and no. 2 (Cautions, Advisory and Maintenance Codes Schematic, A1-F18AC-741-500, WP013 00).</p> |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 13)

| Indication (Ref Code) | Description |
|--|--|
| TANK PRESS (PLCAT5) | <p>7 ➤ Displayed when one of the below exists:</p> <ol style="list-style-type: none"> 1. Digital data computer operational flight programs (OFP) are not compatible with each other. 2. The configuration identifiers for programmed systems are not compatible (A1-F18AC-SCM-000). 3. Flight control computer OFPs are not compatible with each other. 4. Flight control computers are not compatible with the throttle modifications. 5. FCCA and FCCB OFP are not 91C* with RECCE nose installed (A1-F18AC-SCM-000) <p>(Digital Data Computer No. 1 and No. 2 Cautions, Advisory and Maintenance Codes Schematic. A1-F18AC-741-500, WP013 00).</p> <p>Displayed when:</p> <ul style="list-style-type: none"> • Weight is not on wheels. • Left or right engine RPM exceeds 80 percent and altitude is less than 30,000 feet. <p style="text-align: center;">OR</p> <p>Left or right engine RPM exceeds 102 percent and altitude is equal to or greater than 57,000 ft.</p> <p style="text-align: center;">OR</p> <p>Left or right engine RPM exceeds limit computed using altitude (between 37,000 ft and 57,000 ft.)</p> <ul style="list-style-type: none"> • The ADC commands tank pressure (negative G or altitude greater than 20,000 ft). <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> • Above conditions exist for 12 seconds. <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> • The tank is not pressurized. <p>Also displayed if tanks are pressurized with weight on wheels. (Fuel Pressurization and Vent System Schematic, A1-F18AC-460-500, WP011 00). For troubleshooting, see table 10, WP005 00.</p> |
| <p>3 ➤ U BATT LO (PLCAT6)</p> <p>VEL (PLCT11)</p> | <p>Indicates utility battery in a low state of charge. Maintenance code 880 not set on ground. Do Battery Charging (A1-F18AC-PCM-000).</p> <p>Displayed when weight is off wheels and wind magnitude exceeds the computed limit based on ADC baro altitude. (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00).</p> |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 14)

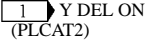

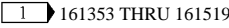
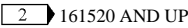
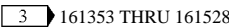
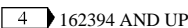
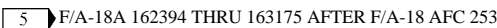
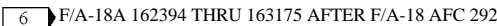

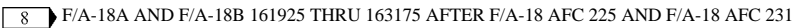

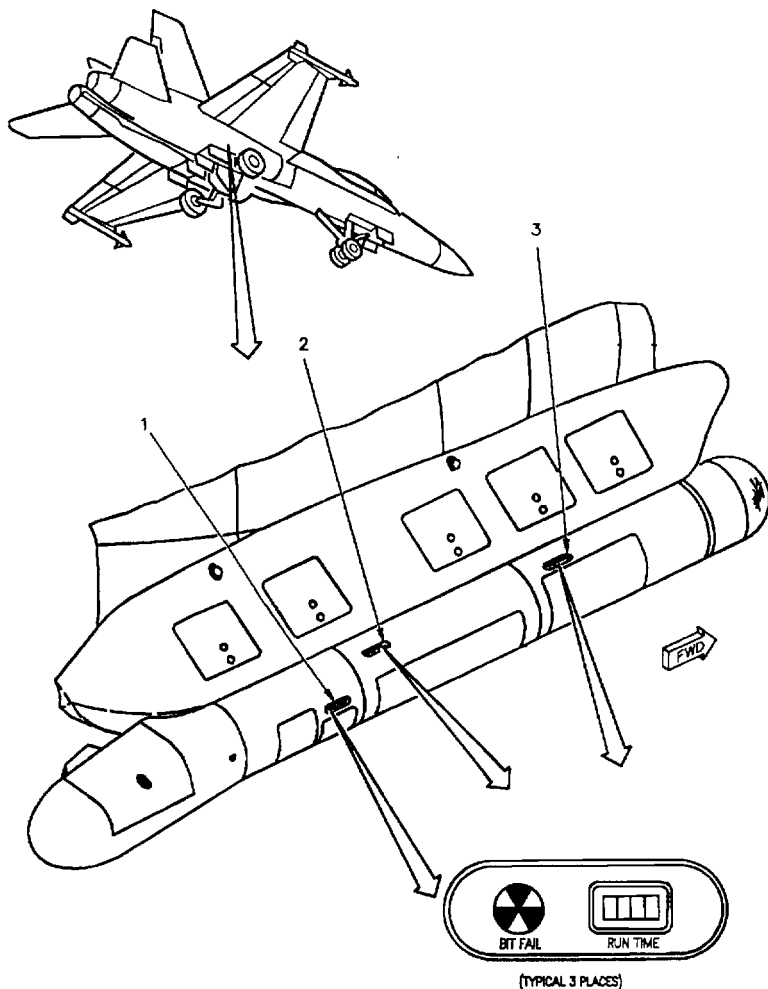


| Indication (Ref Code) | Description |
|---|--|
| VOICE/AUR (PLCT12) | Displayed when the Intercommunication Amplifier-Control AM-7630/A indicates a voice alert function fail, the Control-Converter C-10382/A does not communicate on the avionics mux for 2 seconds, or the Control-Converter C-10382/A fails. (Intercommunication and Audio System Functional Schematic, A1-F18AC-600-500, WP013 00). |
| WDSHLD HOT (PLCAT5) | Indicates windshield anti-ice or rain removal air temperature above recommended levels. For troubleshooting see table 8, WP005 00. |
| WING UNLK (PLCAT6) | Indicates wing locking pins are not fully in the locked position (Wing Fold System Schematic, A1-F18AC-570-500, WP027 00). |
|  1 Y DEL ON (PLCAT2) | Indicates yaw control has reverted from CAS to DEL (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
|  1 Y OFF (PLCAT2) | Indicates that yaw CAS and yaw DEL modes are disengaged (Cautions and BIT Displays Schematic, A1-F18AC-570-500, WP024 00). |
| LEGEND | |
|  1 161353 THRU 161519 | |
|  2 161520 AND UP | |
|  3 161353 THRU 161528 | |
|  4 162394 AND UP | |
|  5 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 | |
|  6 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292 | |
|  7 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | |
|  8 F/A-18A AND F/A-18B 161925 THRU 163175 AFTER F/A-18 AFC 225 AND F/A-18 AFC 231 | |
|  9 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 231 PART 2 OR PART 3 | |

Figure 28. Digital Display Indicator Caution/Advisory Indications (Sheet 15)

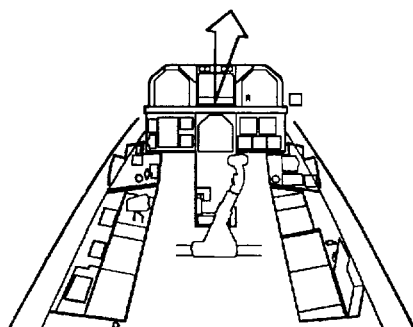
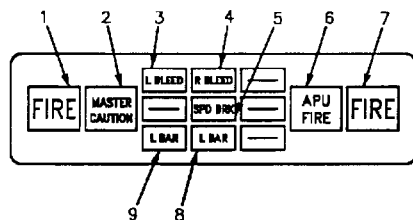


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**Figure 29. Laser Detector Tracker and Strike Camera System (LDT/CAM)
Fault Indicators (Sheet 1)**

| Index | Malfunction | Related Maint. Code  | Maintenance Action |
|--|--|--|--|
| 1 | Camera Drive - Mounting TG-244/ASQ-173 fault indicator latched (black and white) | 351 | <ul style="list-style-type: none">• Replace Camera Drive - Mounting TG-244/ASQ-173 (A1-F18AC-770-300, WP009 00). |
| 2 | Interconnecting Box J-3656/ASQ-173 fault indicator latched (black and white) | 326 | <ul style="list-style-type: none">• Replace Interconnecting Box J-3656/ASQ-173 (A1-F18AC-743-300, WP004 00). |
| 3 | Laser Detector DT-612/ASQ-173 fault indicator latched (black and white) | 325 | <ul style="list-style-type: none">• Replace Laser Detector DT-612/ASQ-173 (A1-F18AC-743-300, WP003 00) |
| <div>LEGEND</div> <div> F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> | | | |

**Figure 29. Laser Detector Tracker and Strike Camera System (LDT/CAM)
Fault Indicators (Sheet 2)**



REAR COCKPIT

| Index | Indication | Description |
|----------------------------------|----------------|--|
| 1 | FIRE | Red light on indicates a fire condition in the left engine/AMAD bay (Loop A/Loop B Fire Detection System Schematic, A1-F18AC-240-500, WP009 00). |
| 2 | MASTER CAUTION | Yellow light on indicates caution condition exists. Light is turned off by pressing MASTER CAUTION light (Rear Cockpit Caution Lights Schematic, A1-F18AC-440-500, WP007 00). |
| 3 | L BLEED | Red light on when leak detected in left engine bay or downstream of secondary pressure regulator (Rear Cockpit Warning/Caution/Advisory Lighting System Schematic, A1-F18AC-410-500, WP006 00). |
| 4 | R BLEED | Red light on when leak detected in right engine bay or downstream of secondary pressure regulator (Rear Cockpit Warning/Caution/Advisory Lighting System Schematic, A1-F18AC-410-500, WP006 00). |
| 5 | SPD BRK | Green light on when speed brake extended, off when retracted (Speed Brake System Schematic, A1-F18AC-570-500, WP026 00). |
| 6 | APU FIRE | Red light on warns that fire condition exists in APU bay (Loop A/Loop B Fire Detection System Schematic, A1-F18AC-240-500, WP009 00). |
| 7 | FIRE | Red light on indicates that fire condition exists in right engine/AMAD bay (Loop A/Loop B Fire Detection System Schematic, A1-F18AC-240-500, WP009 00). |
| 8 | L BAR (red) | Light on indicates: <ol style="list-style-type: none"> 1. LAUNCH BAR control switch on LH Vertical Console Control Panel set to EXTEND, weight off L MLG and 28vdc primary power is applied. 2. LAUNCH BAR control switch on LH Vertical Console Control Panel set to EXTEND, L MLG not down and locked, and 28vdc primary power is applied. 3. Launch bar assembly extended, weight off L MLG, and 28vdc primary power applied. 4. Launch bar assembly extended, L MLG not down and locked, and 28vdc primary power applied. <div>1</div> 5. LAUNCH BAR switch on LH Vertical Console Control Panel set to EXTEND, both throttles at or above MIL power, and 28vdc applied (Catapult System Schematic, A1-F18AC-130-500, WP011 00). |
| 9 | L BAR (green) | Light on indicates launch bar is extended, LAUNCH BAR switch in EXTEND on LH Vertical Console Control Panel, weight on NLG, 28vdc primary power is applied, and L BAR (red) is not on (Catapult System Schematic, A1-F18AC-130-500, WP011 00). |
| LEGEND | | |
| <div>1</div> 161353 THRU 161715. | | |

Figure 30. Rear Advisory and Threat Warning Indicator Panel Indications (Sheet 2)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

FAULT DESCRIPTOR

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| AC Power System, Table 2 | 5 |
| ADC, Table 17 | 50 |
| ADF System, Table 41 | 73 |
| AIM-7 Missiles, Table 33 | 64 |
| Air Cycle Air Conditioning System, Table 8 | 22 |
| Air Data Computer System, Table 17 | 50 |
| ALT, Table 21 | 52 |
| Altimeter System, Electronic, Table 21 | 52 |
| Arresting Gear System, Table 37 | 70 |
| AUG, Table 25 | 54 |
| Avionics Cooling System, Table 8 | 22 |
| Backup Attitude System, Table 40 | 72 |
| Basic Engine System, Table 4 | 11 |
| BCN, Table 25 | 54 |
| Beacon System, Table 25 | 54 |
| Cabin Cooling and Defog System, Table 8 | 22 |
| Cabin Pressurization System, Table 8 | 22 |
| CAM, Table 30 | 62 |
| Catapult System, Table 38 | 70 |
| COM 1, Table 32 | 63 |
| COM 2, Table 32 | 63 |
| COM, Table 32 | 63 |
| Communication System, Table 32 | 63 |
| Countermeasures Dispensing System, Table 42 | 73 |
| Countermeasures Set, Table 43 | 73 |
| Countermeasures Warning and Control System, Table 35 | 68 |
| CSC, Table 13 | 38 |
| D/L, Table 31 | 62 |
| Data Link System, Table 31 | 62 |
| DC Power System, Table 2 | 5 |
| ECS, Table 8 | 22 |
| Electrical System, Table 2 | 5 |
| Electronic Altimeter System, Table 21 | 52 |
| Embedded GPS/INS System, Table 47 | 75 |
| Engine Instrument System, Table 4 | 11 |
| Engine System, Table 4 | 11 |
| Environmental Control Systems, Table 8 | 22 |
| FCSA, Table 27 | 55 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|-----------------|
| FCSB, Table 27 | 55 |
| Flight Control System, Table 27 | 55 |
| FLIR, Table 28 | 60 |
| Forward Looking Infrared System, Table 28 | 60 |
| Fuel System, Table 10 | 27 |
| Center of Gravity (CG) Control System | 35 |
| Defuel/Refuel System | 27 |
| Engine Fuel Supply System | 32 |
| External Fuel System | 30 |
| Fuel Low Level Warning System | 34 |
| Fuel Pressurization and Vent System | 32 |
| Fuel Quantity Gaging System | 33 |
| Fuel Storage System | 27 |
| Hot Fuel Recirculation System | 32 |
| Inflight Refueling System | 29 |
| Internal Fuel Transfer System | 31 |
| Low Level Warning System, Fuel | 34 |
| Pressurization, Fuel | 32 |
| Refuel/Defuel System | 27 |
| Vent System | 33 |
| Gun System, Table 6 | 19 |
| Head-Up Display, Table 19 | 51 |
| HSD, Table 3 | 7 |
| HUD, Table 19 | 51 |
| Hydraulic System, Table 11 | 36 |
| IBS, Table 23 | 53 |
| ICS Table 20 | 51 |
| IFF Table 24 | 53 |
| IFF System, Table 24 | 53 |
| ILS, Table 22 | 52 |
| Inertial Navigation System, Table 16 | 46 |
| INS, Table 16 | 46 |
| INS Ground Speed Error Performance Chart, Figure 2 | 49 |
| INS Position Error Performance Chart, Figure 1 | 48 |
| Instrument Landing System, Table 22 | 52 |
| Instrument Systems, Table 12 | 38 |
| Intercommunication and Audio System, Table 20 | 51 |
| Interference Blanker System, Table 23 | 53 |
| Introduction | 4 |
| Landing Gear System, Table 9 | 26 |
| Laser Detector Tracker System, Table 29 | 61 |
| LDDI, Table 3 | 7 |
| Lighting System, Table 1 | 4 |
| LST, Table 29 | 61 |
| Maintenance Status Display and Recording System, Table 18 | 50 |
| MC1, Table 13 | 38 |
| MC2, Table 13 | 38 |
| Mission Computer System, Table 13 | 38 |
| Mission Data Loader, Table 48 | 76 |
| Multipurpose Display Group, Table 3 | 7 |
| Nose Wheel Steering System, Table 34 | 67 |
| Power Distribution System, Table 2 | 5 |
| Radar Beacon System, Table 25 | 54 |
| Radar System, Table 14 | 39 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|-----------------|
| RDDI, Table 3 | 7 |
| RDR, Table 14 | 39 |
| RLCS, Table 8 | 22 |
| SDRS, Table 18 | 50 |
| Secondary Power System, Table 7 | 19 |
| Secure Speech System, Table 44 | 74 |
| SMS, Table 15 | 41 |
| Speed Brake System, Table 45 | 74 |
| Stores Management System, Table 15 | 41 |
| Aircraft Master Mode | 41 |
| BIT | 41 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| Displays | 43 |
| Power Up BIT | 43 |
| Weapon Select | 45 |
| Strain Gages, Table 5 | 18 |
| Strike Camera System, Table 30 | 62 |
| Strike Recording Still Picture Camera KB-35A System, Table 30 | 62 |
| TACAN System, Table 26 | 54 |
| TCN, Table 26 | 54 |
| Vent Suit System, Table 8 | 22 |
| Video Recording System, Table 36 | 69 |
| Weapons System, Table 33 | 64 |
| Wheel, Brake and Anti-Skid System, Table 39 | 71 |
| Wing Fold System, Table 46 | 75 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|---------------------------------------|-----------|---|-----------------|---------|
| F/A-18 AFC 056 | 27 Mar 85 | Fuel System Components Replacement and System Inspections (ECP MDA-F18-00158R1, R1, AND -00100) | 15 Oct 85 | - |
| F/A-18 AFC 070 | - | Motive Flow Boost Pump Pressure Switch Installation (ECP MDA-F/A-18-0015BR2) | 1 Jun 86 | - |
| F/A-18 AFC 053 | - | Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shut Off Valve and Raised Inverted Baffle (ECP MDA-F/A-18-00055/C1) | 1 Sep 86 | - |
| F/A-18 AFC 48 | - | F/A-18 Aircraft Modification Program Implementation Letter ECP MDA-F/A-18-00121 Alternating Current Bus Isolation | 15 Apr 87 | - |
| F/A-18 AFC 49 | - | Addition of Sealed Lead Acid Battery | 15 Apr 87 | - |
| F/A-18 AFC 27 | - | Leading Edge Flap/Control Stick Changes (ECP MDA-F18-00044) | 15 Jan 85 | - |
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, In- corporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Up- grade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |
| F/A-18 AFC 225 | - | Five (5) Avionics Multiplex Bus Upgrade, Incor- poration of (ECP MDA-F/A-18 0529) | 1 Jun 02 | - |
| F/A-18 AFC 231 | - | Embedded Global Positioning System (GPS)/In- ertial Navigation System (INS) (EGI), Incorpora- tion of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |
| F/A-18 AFC 231 Part 2 or Part 3 | - | Embedded Global Positioning System (GPS)/In- ertial Navigation System (INS) (EGI), Incorpora- tion of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |

1. INTRODUCTION.

2. This work package contains descriptions of reported malfunctions and related maintenance codes listed by system. The action to take for each fault descriptor is listed along with other data pertinent to that descriptor. Faults are listed only when no corre-

lating maintenance codes exist. The maintenance codes listed by system may be used as an aid in relating reported malfunctions to maintenance codes. When a maintenance code and reported malfunction exist for a system or subsystem, perform the maintenance action for the maintenance codes(s) (WP003 00) first.

Table 1. Lighting System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| Cockpit Instrument Lights failure | Do cockpit instrument lights test (A1-F18AC-440-200, WP004 00). |
| Cockpit Console Lights failure | Do cockpit console lights test (A1-F18AC-440-200, WP003 00). |
| Cockpit Utility and Floodlights failure | Do cockpit utility and floodlights test (A1-F18AC-440-200, WP004 00). |
| Engine Instrument Floodlight failure | Do APU performance test (A1-F18AC-240-200, WP003 00). |
| Cockpit Warning/Caution/Advisory Lights failure | Do cockpit warning/caution/advisory lighting system test (A1-F18AC-440-200, WP003 00). |
| Position Lights failure | Do position lights test (A1-F18AC-440-200, WP003 00). |
| Formation Lights failure | Do formation lights test (A1-F18AC-440-200, WP003 00). |
| Anti-Collision (Strobe) Lights failure | Do Anti-collision (strobe) lights test (A1-F18AC-440-200, WP003 00). |
| Landing/Taxi Light Assembly failure | Do landing/taxi light assembly test (A1-F18AC-440-200, WP003 00). |
| Rear Cockpit Instrument Lights failure | Do rear cockpit instrument lights test (A1-F18AC-440-200, WP005 00). |
| Rear Cockpit Console Lights failure | Do rear cockpit console lights test (A1-F18AC-440-200, WP005 00). |
| Rear Cockpit Utility and Floodlights failure | Do rear cockpit utility and floodlights test (A1-F18AC-440-200, WP005 00). |
| Rear Cockpit Warning/Caution/Advisory Lights failure | Do rear cockpit warning/caution/advisory lighting system test (A1-F18AC-440-200, WP009 00). |

Table 1. Lighting System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| AOA Approach Lights inoperative | Do angle of attack approach and indexer lights test (A1-F18AC-560-200, WP003 00). |
| Cockpit Caution Light Panel and Rear Cockpit Caution Light panel flashes | When the temperature of the caution light panel rises above a safe level, the flasher operates. This causes the lights to flash, preventing the legend from melting. No maintenance action required. |
| Inflight Refueling Floodlight inoperative | Do probe cycle test, (A1-F18AC-460-200, WP004 00). |

Table 2. Electrical System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <div>8</div> NOTE | |
| The maintenance codes listed monitor system status: | |
| 870 873 882 | |
| 871 880 883 | |
| 872 881 884 | |
| 885 | |
| 5 | |
| External power cannot be applied | <div>3</div> Do table 8 (A1-F18AC-420-200, WP003 02). |
| | <div>4</div> Do table 4 (A1-F18AC-420-200, WP003 05). |
| GND PWR switch does not engage | Do troubleshooting procedure (A1-F18AC-FIM-000, WP012 00). |
| <div>4</div> GEN TIE light on | Do AC Power System test A1-F18AC-420-200, WP003 00. |
| L GEN caution light on with related maintenance code (870) | Replace left generator converter unit (A1-F18AC-420-300, WP003 00). |
| L GEN caution light on with no related maintenance codes (870 or 872) | Cycle L GEN switch. If light remains on, replace left generator converter unit (A1-F18AC-420-300, WP003 00). |
| L GEN caution light on with related maintenance code (870 and 872) | Replace left generator converter unit (A1-F18AC-420-300, WP003 00). |
| L GEN caution light on with related maintenance code (872) | Replace left power contactor (A1-F18AC-420-300, WP005 00). |

Table 2. Electrical System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| R GEN caution light on with related maintenance code (871) | Replace right generator converter unit (A1-F18AC-420-300, WP003 00). |
| R GEN caution light on with no related maintenance codes (871 or 873) | Cycle R GEN switch. If light remains on, replace right generator converter unit (A1-F18AC-420-300, WP003 00). |
| R GEN caution light on with related maintenance codes (871 and 873) | Replace right generator converter unit (A1-F18AC-420-300, WP003 00). |
| R GEN caution light on with related maintenance code (873) | Replace right power contactor (A1-F18AC-420-300, WP006 00). |
| L/R Generator converter unit does not come on line. No caution or maintenance codes. | Do APU test (Ground maintenance mode) (A1-F18AC-240-200, WP003 00). |
| BATT SW caution light remains on with BATT switch in OFF position and electrical power not applied. | <div>1</div> Do table 6 (A1-F18AC-420-200, WP005 01). |
| | <div>2</div> Do table 8 (A1-F18AC-420-200, WP005 02). |
| <div>1</div> U BATT and E BATT caution lights on. | Charge battery (A1-F18AC-PCM-000). |
| <div>1</div> U BATT caution light on, E BATT caution light off. | Charge battery (A1-F18AC-PCM-000). |
| <div>2</div> E/U BATT voltmeter indicates less than 23.5vdc with BATT switch in ON position and electrical power not applied. | Charge battery (A1-F18AC-PCM-000). |
| <div>2</div> U BATT voltmeter indicates 0vdc with BATT switch in ON position and electrical power not applied. | <div>6</div> Do table 2 (A1-F18AC-420-200, WP005 02). |
| | <div>7</div> Do table 5 (A1-F18AC-420-200, WP005 03). |
| <div>2</div> E BATT voltmeter indicates 0vdc with BATT switch in ORIDE position and electrical power not Applied. | <div>6</div> Do table 4 (A1-F18AC-420-200, WP005 02). |
| | <div>7</div> Do table 15 (A1-F18AC-420-200, WP005 03). |
| <div>1</div> E BATT caution displayed. | Do troubleshooting procedure (A1-F18AC-FIM-010, WP177 00). |
| LEGEND | |
| <div>1</div> 161353 THRU 161528 BEFORE F18 AFC 49. | |
| <div>2</div> 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 49. | |
| <div>3</div> 161353 THRU 161987 BEFORE F18 AFC 48. | |
| <div>4</div> 162394 AND UP; ALSO 161353 THRU 161987 AFTER F18 AFC 48. | |

Table 2. Electrical System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| LEGEND (Continued) | |
| 5 168092 AND UP. | |
| 6 161702 THRU 163118, ALSO 161353 THRU 161528 AFTER F18 AFC 49. | |
| 7 163119 AND UP. | |
| 8 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 3. Multipurpose Display Group

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| 1 NOTE | |
| The maintenance codes listed monitor system status: | |
| | 002 097 |
| | 003 099 |
| | 095 100 |
| | 096 101 |
| LDDI NOT RDY BIT status message on BIT control display. | On F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). On F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| LDDI NO GO BIT status message on BIT control display. | Replace left Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| LDDI MUX FAIL | Replace left Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| LDDI DEGD BIT status message on BIT control display. | Replace left Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| On F/A-18B, LDDI DEGD 1 BIT status message on BIT control display. | Replace left Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| On F/A-18B, LDDI DEGD 2 BIT status message on BIT control display. | Replace rear left Digital Display Indicator (A1-F18AC-745-300, WP007 00). |

Table 3. Multipurpose Display Group (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| LDDI RESTRT BIT status message on BIT control display. | On F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). On F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| RDDI NOT RDY BIT status message on BIT control display. | On F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). On F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| RDDI NO GO BIT status message on BIT control display. | Replace right Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| RDDI MUX FAIL | Replace right Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| RDDI DEGD BIT status message on BIT control display. | Replace right Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| On F/A-18B, RDDI DEGD 1 BIT status message on BIT control display. | Replace right Digital Display Indicator (A1-F18AC-745-300, WP004 00). |
| On F/A-18B, RDDI DEGD 2 BIT status message on BIT control display. | Replace rear right Digital Display Indicator (A1-F18AC-745-300, WP007 00). |
| RDDI RESTRT BIT status message on BIT control display. | ON F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). ON F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| HSD DEGD BIT status message on BIT control display. | If maintenance code 421 set, replace Lamp Assembly (A1-F18AC-745-300, WP023 00) or replace Horizontal Indicator IP-1350/A (A1-F18AC-745-300, WP006 00). |
| ON F/A-18B, HSD DEGD 1 BIT status message on BIT control display. | If maintenance code 421 set, replace Lamp Assembly (A1-F18AC-745-300, WP023 00) or replace Horizontal Indicator IP-1350/A (A1-F18AC-745-300, WP006 00). |
| ON F/A-18B, HSD DEGD 2 BIT status message on BIT control display. | Replace rear center Digital Display Indicator IP-1318 () (A1-F18AC-745-300, WP005 00). |

Table 3. Multipurpose Display Group (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| HSD RESTRT BIT status message on BIT control display. | ON F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). ON F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| HUD DEGD BIT status message on BIT control display. | Replace Head-Up Display AN/AVQ-28 (A1-F18AC-745-300, WP003 00). |
| HUD RESTRT BIT status message on BIT control display. | ON F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). ON F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| Left Digital Display Indicator has no display. | ON F/A-18A, do table 1 (A1-F18AC-745-200, WP006 00). ON F/A-18B, do table 1 (A1-F18AC-745-200, WP007 00). |

Table 3. Multipurpose Display Group (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| Left Digital Display Indicator displays STANDBY | If STANDBY is displayed, ON F/A-18A, do table 2 (A1-F18AC-745-200, WP004 00). ON F/A-18B, do table 2 (A1-F18AC-745-200, WP005 00). |
| Right Digital Display Indicator has no display | ON F/A-18A, do table 2 (A1-F18AC-745-200, WP005 00). ON F/A-18B, do table 2 (A1-F18AC-745-200, WP007 00). |
| Right digital display indicator displays STANDBY | When STANDBY is displayed, do the below: ON F/A-18A, do table 2 (A1-F18AC 745 200, WP004 00). ON F/A-18B, do table 2 (A1-F18AC-745-200, WP005 00). |
| Left or right digital display indicators flashing and displays STANDBY with uncommanded mode changes. | Replace left or right digital display indicator (A1-F18AC-745-300, WP004 00). |
| Left and/or right digital display indicators IP-1317() displays flashing STANDBY. | <ol style="list-style-type: none"> 1. If any generator or electrical system malfunctions occurred when LDDI and/or RDDI was flashing STANDBY, see table 2 (this WP), for generator/electrical system fault descriptor. 2. If no generator or electrical system malfunctions occurred when LDDI and/or RDDI was flashing STANDBY, do table 1 (A1-F18AC-745-200, WP011 00). |
| Intermittent displays on left digital display indicator, right digital display indicator, head-up display, and horizontal indicator or STANDBY intermittently displayed on left and right digital display indicators and random FCS cautions concurrent with the intermittent displays and/or intermittent STANDBY when 1G is exceeded during aircraft maneuvers. Problem can not be duplicated on the ground. | <ol style="list-style-type: none"> 1. Determine which AC power system (left or right) is faulty by using table 9 (A1-F18AC-741-200, WP008 00). 2. When it is determined which AC power system (left or right) is faulty, replace that generator control unit (GCU) (A1-F18AC-420-300, WP003 00). |

Table 3. Multipurpose Display Group (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <p style="text-align: center;">NOTE</p> <p style="text-align: center;">Hold removed GCU for possible Engineering Investigation</p> | |
| Digital display indicator remains blank after turn on during single digital display indicator operation. | <p>3. If problem repeats on next flight, do Testing and Troubleshooting - AC Power System (A1-F18AC-420-200, WP003 00).</p> <p>4. If problem does not repeat on next flight, submit removed GCU for Engineering Investigation (OPNAV-INST 4790.2(), Vol II.</p> <p>On GND PWR control panel assembly, set 1 switch from A ON to B ON for three seconds and return to A ON. If digital display indicator is still blank, do the below:</p> <p>ON F/A-18A, do Displays Test (A1-F18AC-200, WP004 00).</p> <p>ON F/A-18B, do Displays Test (A1-F18AC-200, WP005 00).</p> |
| Digital display indicator BRT or CONT inoperative. | Replace digital display indicator (A1-F18AC-745-300, WP004 00). |
| Horizontal Indicator IP-1350/A has no display. | <p>Do the below:</p> <p>On F/A-18A, do table 3 (A1-F18AC-745-200, WP006 00).</p> <p>On F/A-18B, do table 3 (A1-F18AC-745-200, WP007 00).</p> |
| Head-Up Display AN/AVQ-28 has no display. | <p>Do the below:</p> <p>On F/A-18A, do table 4 (A1-F18AC-745-200, WP006 00).</p> <p>On F/A-18B, do table 4 (A1-F18AC-745-200, WP007 00).</p> |
| Map stuck. | Replace HI (A1-F18AC-745-300, WP006 00). |
| Map not illuminated. | Replace HI (A1-F18AC-745-300, WP006 00). |
| Map frame does not track present aircraft position. | Replace HI (A1-F18AC-745-300, WP006 00). |

Table 3. Multipurpose Display Group (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| MAP will not slew or update. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP134 00). |
| MAP will not stow: a. During landing b. During catapult. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP175 00). |
| HUD and/or HI flash. | On F/A-18A, do table 5 (A1-F18AC-745-200, WP006 00). On F/A-18B, do table 1 (A1-F18AC-745-200, WP008 00). |
| On F/A-18A or F/A-18B, if any multipurpose display group indicator DEGD BIT status message is displayed and indicator(s) has an electrical burning smell (No MMP code(s) set). | See table 8, this WP, for environmental control systems fault descriptor. If environmental control systems tests good, on F/A-18A, do displays test (A1-F18AC-745-200, WP004 00). On F/A-18B, do displays test (A1-F18AC-745-200, WP005 00). |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 4. Engine System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| 1 NOTE | |
| The maintenance codes listed monitor system status | |
| 650 702 754 | |
| 651 703 756 | |
| 652 704 757 | |
| 658 706 759 | |
| 659 707 760 | |
| 660 709 761 | |
| 661 710 762 | |
| 662 711 763 | |
| 666 712 764 | |
| 667 713 765 | |
| 668 714 766 | |
| 674 715 768 | |
| 675 716 813 | |
| 676 718 814 | |
| 677 752 815 | |
| 678 753 980 | |
| 981 | |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <u>Starting Failures</u> No start Hot start Hung or slow start Stall during start Engine will not crank Engine will not crank fast enough No crossbleed start Ignition system malfunction No windmill/spooldown aircraft | Do table 1 (A1-F18AC-270-200, WP005 00). Do table 2 (A1-F18AC-270-200, WP005 00). Do table 1 (A1-F18AC-270-200, WP005 00). Do table 3 (A1-F18AC-270-200, WP005 00). Do APU Performance Test (A1-F18AC-240-200, WP003 00). Do APU Performance Test (A1-F18AC-240-200, WP003 00). Do Crossbleed Start Test (A1-F18AC-240-200, WP003 00). Do table 4 (A1-F18AC-270-200, WP005 00). Do table 5 (A1-F18AC-270-200, WP005 00). |
| <u>Idle indications out of limits</u> High idle Low idle VEN out of limits Flameout - no restart Flameout with engine relight | Do table 2 (A1-F18AC-270-200, WP008 00). Do table 2 (A1-F18AC-270-200, WP008 00). Do table 2 (A1-F18AC-270-200, WP007 02). Do table 3 (A1-F18AC-270-200, WP006 00). Do table 4 (A1-F18AC-270-200, WP006 00). |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <u>Transient Failures</u> Left engine N ₂ lockup malfunction (Engine to high power without throttle movement or does not respond to throttle decrease with engine at high power.) Right engine N ₂ lockup malfunction (Engine accelerates to high power without throttle movement or does not respond to throttle decrease with engine at high power.) Speed hang up above idle Fan (N ₁) overspeed Compressor (N ₂) overspeed Stall above idle Engine surging or cycling (RPM/EGT/Fuel Flow/NOZ POS) Flameout - no restart Flameout with engine relight EGT overtemp | Do table 3 (A1-F18AC-270-200, WP007 00). Do table 4 (A1-F18AC-270-200, WP007 00). Do table 2 (A1-F18AC-270-200, WP006 00). Do table 1 (A1-F18AC-270-200, WP009 00). Do table 2 (A1-F18AC-270-200, WP009 00). Do table 1 (A1-F18AC-270-200, WP006 01). Do table 2 (A1-F18AC-270-200, WP009 01). Do table 3 (A1-F18AC-270-200, WP003 00). Do table 4 (A1-F18AC-270-200, WP006 00). Follow instructions figure 4 (A1-F18AC-270-200, WP003 00). |
| <u>Combustible fluid ingestion</u> Visual and/or audible abnormal indications | Do table 7 (A1-F18AC-270-200, WP006 01). |
| <u>Military steady state indications out of limits</u> N ₁ RPM out of limits VEN out of limits | Do table 1 (A1-F18AC-270-200, WP008 00). Do table 2 (A1-F18AC-270-200, WP007 02). |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| VEN Indication Malfunction | Do table 3 (A1-F18AC-270-200, WP007 02). |
| VEN Erratic or Cycles | Do table 4 (A1-F18AC-270-200, WP007 02). |
| EGT out of limits | Do table 1 (A1-F18AC-270-200, WP007 00). |
| Left and right engine fuel flow differ more than 800 pph at military | Do table 3 (A1-F18AC-270-200, WP009 01). |
| EGT underlimits | Do table 1 (A1-F18AC-270-200, WP007 02). |
| Engine surging or cycling (RPM/EGT/Fuel Flow/NOZ POS) | Do table 2 (A1-F18AC-270-200, WP009 01). |
| Low thrust | Do table 3 (A1-F18AC-270-200, WP009 00). |
| Vibration | Do table 1 (A1-F18AC-270-200, WP009 01). |
| Loss of power | Do table 2 (A1-F18AC-270-200, WP006 00). |
| <u>Afterburner failures</u> | |
| No afterburner light off | Do table 3 (A1-F18AC-270-200, WP008 00). |
| Reduced afterburner operation | Do table 4 (A1-F18AC-270-200, WP009 00). |
| Ignition system malfunction | Do table 4 (A1-F18AC-270-200, WP005 00). |
| Afterburner blowout | Do table 5 (A1-F18AC-270-200, WP009 00). |
| <u>Sensor Failure</u> | |
| Fan Speed Signal Fail | Do table 3 (A1-F18AC-270-200, WP006 01). |
| Compressor Speed Signal Fail | Do table 2 (A1-F18AC-270-200, WP006 01). |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Oil level sensor failure | Do table 6 (A1-F18AC-270-200, WP011 00). |
| Fuel flow false indication | Do table 2 (A1-F18AC-270-200, WP010 00). |
| Fan inlet temperature failure | Do table 3 (A1-F18AC-270-200, WP010 00). |
| EGT false indication | Do table 2 (A1-F18AC-270-200, WP007 00). |
| Compressor discharge pressure false indication | Do table 3 (A1-F18AC-270-200, WP012 00). |
| Turbine discharge pressure false indication | Do table 4 (A1-F18AC-270-200, WP012 00). |
| <u>Oil system failures</u> | |
| No oil pressure | Do table 5 (A1-F18AC-270-200, WP011 00). |
| Low oil pressure | Do table 1 (A1-F18AC-270-200, WP011 00). |
| High oil pressure | Do table 2 (A1-F18AC-270-200, WP011 00). |
| Oil level sensor failure (low oil level and no 980 or 981 code) | Do table 6 (A1-F18AC-270-200, WP011 00). |
| Fluctuating oil pressure | Do table 8 (A1-F18AC-270-200, WP011 00). |
| Oil system contamination | Do table 2 (A1-F18AC-270-300, WP058 00). |
| High oil consumption | Do table 4 (A1-F18AC-270-200, WP011 00). |
| Sump oil leakage | Do table 1 (A1-F18AC-270-200, WP012 00). |
| Cockpit fumes | Do table 5 (A1-F18AC-270-200, WP012 00). |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Oil filter (ΔP) indicator extended | Do table 2 (A1-F18AC-270-300, WP058 00). |
| Excessive leakage at combined drains | Do table 2 (A1-F18AC-270-200, WP012 00). |
| <u>VEN hydraulic system</u> | |
| VEN (ΔP) indicator extended | Do table 2 (A1-F18AC-270-300, WP058 00). |
| VEN oil consumption exceeds .32 oz per hour of operations | If no external leakage exists, replace VEN power unit (A1-F18AC-270-300, WP026 00). |
| <u>Fuel system</u> | |
| Fuel filter impending bypass (ΔP) indicator extended | Do table 2 (A1-F18AC-270-300, WP058 00). |
| Fuel filter bypass (ΔP) indicator extended | Do table 2 (A1-F18AC-270-300, WP058 00). |
| Fuel leaking or spraying into afterburner during motoring | 1. If one afterburner distributor valve is leaking replace defective valve (A1-F18AC-270-300, WP021 00). 2. If more than one afterburner distributor valve is spraying fuel during motoring replace afterburner fuel control (A1-F18AC-270-300, WP015 00). |
| <u>Bleed air system failures</u> | |
| Anti-ice fail | Do table 1 (A1-F18AC-270-200, WP010 00). |
| Cockpit fumes | Do table 5 (A1-F18AC-270-200, WP012 00). |
| <u>Throttle system failures</u> | |
| Throttle binding/stuck | Do Throttle Friction Test (A1-F18AC-270-200, WP016 00 or WP017 00). |
| Excessive friction between MIL and A/B at detent | Do MIL Detent Friction Test (A1-F18AC-270-200, WP016 00 or WP017 00). |
| Excessive force required to override the A/B lockout stop | Do Throttle Quadrant Afterburner Lockout Friction Test (A1-F18AC-270-200, WP016 00 or WP017 00). |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| Flight idle or afterburner lockout failure | Do Flight Idle or Afterburner Lockout Test (A1-F18AC-270-200, WP018 00). |
| Throttle creeping | <ol style="list-style-type: none"> 1. Check linkage to rack and pinion control unit. If linkage is good, replace throttle boost actuator for appropriate throttle (A1-F18AC-270-300, WP089 00). 2. If malfunction still exists, replace power lever control (A1-F18AC-270-300, WP013 00). |
| Throttles mismatched with engines at same fuel flow and/or N ₂ % RPM. (Some mismatch may occur due to engine deterioration and/or difference) | <ol style="list-style-type: none"> 1. Open doors 64 L And R (A1-F18AC-LMM-010). 2. Move throttles to OFF, MIL And MAX. If index marks on the rack and pinion control unit do not align do throttle rigging procedure (A1-F18AC-270-300, WP086 00 or WP087 00). 3. If throttles are correctly rigged do engine test (A1-F18AC-270-200, WP003 00). |
| <u>Instrument System Failure</u> | |
| Crew Station Engine Monitor Indicator (EMI) AEU-12/A false indications. | Do Crew Station Engine Monitor Indicator AEU-12/A (EMI) Test (A1-F18AC-270-200, WP015 00). |
| Crew Station Engine Monitor Indicator (EMI) AEU-12/A uncommanded BIT with electrical power off and BATT switch ON. | Connect 82P-F001B to control converter C-10382/A and 78-E001A to receiver transmitter RT-1157/A/ADX-100(V). |
| <u>Voice Alert</u> | |
| “Engine Left” voice alert not heard in headset. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP160 00). |
| “Engine right” voice alert not heard in headset. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP160 00). |
| <u>Thrust</u> | |
| Left thrust display missing with no engine malfunction. | Do table 6 (A1-F18AC-270-200, WP012 00). |
| Right thrust display missing with no engine malfunction | Do table 7 (A1-F18AC-270-200, WP012 00). |

Table 4. Engine System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| No left and right thrust display | 1. If maintenance code 125 exists, replace Air Data Computer CP-1334/A (A1-F18AC-560-300, WP003 00). 2. If maintenance code 125 does not exist, do FCS ATC BIT Procedure (A1-F18AC-570-200, WP005 00). 3. If ATC BIT status message is GO, do Signal Data Recording Set AN/ASM-B12 Test (A1-F18AC-580-200, WP003 00). |
| <u>Shutdown Failure</u> No flameout MMP code(s) when engines are shut-down using fire warning light pushbutton switch after engine(s) running above ground idle for greater than two minutes. | Throttle PLA(s) not rigged to 15 degrees or greater when throttle are in ground idle detent position. Do Throttle Rigging procedure (A1-F18AC-270-300, WP086 00 AND WP087 00). |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 5. Strain Gages

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| Right Vertical Stabilizer Strain Gage 85M-T010 defective or no output. | Do table 8 (A1-F18AC-580-200, WP005 00). |
| Left Vertical Stabilizer Strain Gage 85M-S011 defective or no output. | Do table 7 (A1-F18AC-580-200, WP005 00). |
| Right Horizontal Stabilator Strain Gage 85M-T012 defective or no output. | Do table 6 (A1-F18AC-580-200, WP005 00). |
| Left Horizontal Stabilator Strain Gage 85M-S019 defective or no output. | Do table 5 (A1-F18AC-580-200, WP005 00). |
| Drag Brace Support Strain Gage 85M-F019 defective or no output. | Do table 4 (A1-F18AC-580-200, WP005 00). |
| Left Wing Root Strain Gage 85M-U020 defective or no output. | Do table 3 (A1-F18AC-580-200, WP005 00). |
| Left Wing Fold Strain Gage 85M-U021 defective or no output. | Do table 2 (A1-F18AC-580-200, WP005 00). |

Table 6. Gun System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|-------------------------------------|--|
| 20MM gun jams | Refer to A1-F18AC-GJC-100. |
| GUN GAS Caution Fail | Do table 4 (A1-F18AC-750-200, WP006 00) for memory inspect test and/or do table 5 (A1-F18AC-750-200, WP006 00) for ECS test. |
| Gun Gas Scavenge Door Fails To Open | Do table 1 (A1-F18AC-750-200, WP010 00). |

Table 7. Secondary Power System

| FAULT DESCRIPTION | MAINTENANCE ACTION | | | | | | | | | | | | |
|---|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <div>1</div> NOTE <p>The maintenance codes listed monitor system status:</p> <table> <tr><td>800</td><td>817</td></tr> <tr><td>801</td><td>818</td></tr> <tr><td>802</td><td>819</td></tr> <tr><td>804</td><td>982</td></tr> <tr><td>805</td><td>983</td></tr> <tr><td>816</td><td>984</td></tr> </table> | | 800 | 817 | 801 | 818 | 802 | 819 | 804 | 982 | 805 | 983 | 816 | 984 |
| 800 | 817 | | | | | | | | | | | | |
| 801 | 818 | | | | | | | | | | | | |
| 802 | 819 | | | | | | | | | | | | |
| 804 | 982 | | | | | | | | | | | | |
| 805 | 983 | | | | | | | | | | | | |
| 816 | 984 | | | | | | | | | | | | |
| AMAD will not operate in ground maintenance mode. | Do Ground Maintenance Mode Test (A1-F18AC- 240-200, WP003 00). | | | | | | | | | | | | |
| No ECS cooling air from APU. | Do ECS Mode Test (A1-F18AC-240-200, WP003 00). | | | | | | | | | | | | |
| Engine crank switch does not remain in L or R position when cranking engine. | Do APU Performance Test (A1-F18AC-240-200, WP003 00). | | | | | | | | | | | | |
| Engine crank switch does not remain in L or R position in Ground Maintenance Mode. | Do APU Performance Test (A1-F18AC-240-200, WP003 00). | | | | | | | | | | | | |
| Fire detection test fails. | Do table 1 (A1-F18AC-240-200, WP007 00). | | | | | | | | | | | | |
| No crossbleed start. | Do Crossbleed Start Test (A1-F18AC-240-200, WP003 00). | | | | | | | | | | | | |
| Engine does not crank. | Do APU Performance Test (A1-F18AC-240-200, WP003 00). | | | | | | | | | | | | |
| Engine does not crank fast enough. | Do APU Performance Test (A1-F18AC-240-200, WP003 00). | | | | | | | | | | | | |

Table 7. Secondary Power System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| L AMAD caution displayed on Digital Display Indicator. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP085 00). |
| R AMAD caution displayed on Digital Display Indicator. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP085 00). |
| AMAD ground maintenance mode shuts down without operator action. | <ol style="list-style-type: none"> 1. Make sure L and R AMAD decoupler handles are still in the decoupled position. 2. Set up left Digital Display Indicator for displays (A1-F18AC-LMM-000). 3. If L or R AMAD caution exists, shut down is due to high AMAD temperature. Allow AMAD to cool before further operation. 4. If L or R AMAD caution does not exist, do troubleshooting procedure ENG CRANK switch holding coil circuit (A1-F18AC-FIM-000, WP139 00). |
| APU accumulator bleeds down with corresponding bleed down of emergency brake accumulator. | Do troubleshooting procedure (A1-F18AC-130-200, WP007 27). |
| APU accumulator bleeds down with no corresponding bleed down of emergency brake accumulator. | Do troubleshooting procedures (A1-F18AC-240-200, WP006 00). |
| APU ACCUM caution displayed on Digital Display Indicator. | Service APU accumulator (A1-F18AC-PCM-000, WP015 00). |
| APU no start in flight with or without maintenance code(s). | Start APU (A1-F18AC-LMM-000). If APU starts no further action is required. If APU does not start, troubleshoot per maintenance code(s) or this table. |
| APU no start with no APU maintenance codes. | Do ECU/APU test procedure (A1-F18AC-240-200, WP003 01). If ECU/APU tester not available, do troubleshooting procedure (A1-F18AC-FIM-000, WP140 00). |
| APU switch will not hold in “ON ” position. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP152 00). |
| APU compressor stall (bangs) during APU operation. | Replace APU (A1-F18AC-240-300, WP003 00). |
| Fuel or Oil out APU drain lines. | Replace APU (A1-F18AC-240-300, WP003 00). |

Table 7. Secondary Power System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| Fuel or Oil out APU drain lines | Replace APU (A1-F18AC-240-300, WP003 00). |
| Smoke and/or airflow out of APU inlet when engine is being crossbleed started or external air source is being used for engine start. | Replace APU air out check valve (A1-F18AC-240-300, WP014 00). |
| Sparks out the APU exhaust duct. | Replace APU (A1-F18AC-240-300, WP003 00). |
| Sparks out the ATS exhaust duct. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP154 00). |
| No APU auto shutdown, after second engine start. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP153 00). |
| APU auto shutdown with no maintenance codes. | <ol style="list-style-type: none"> 1. Verify battery is properly charged. 2. Reattempt APU start. 3. If no start and no codes, do troubleshooting procedure (A1-F18AC-FIM-000, WP140 00). |
| L AMAD PR caution displayed on Digital Display Indicator. | Do table 3 (A1-F18AC-240-200, WP005 05). |
| R AMAD PR caution displayed on Digital Display Indicator. | Do table 3 (A1-F18AC-240-200, WP005 05). |
| APU starts up uncommanded (APU control switch OFF), when main engine(s) are shut down. | Replace APU shutdown timer relay (A1-F18AC-420-300, WP037 00). |
| LEGEND | |
| <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 5px;">1</div> <div>F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> </div> | |

Table 8. Environmental Control Systems

| FAULT DESCRIPTION | | MAINTENANCE ACTION | |
|---|-------|---|--|
| <div>3</div> NOTE | | | |
| The maintenance codes listed monitor system status: | | | |
| 820 | 829 | 840 | |
| 821 | 830 | 841 | |
| 822 | 831 | 842 | |
| 823 | 832 | 843 | |
| 824 | 833 | 844 | |
| 825 | 1 836 | 2 845 | |
| 826 | 1 837 | 2 846 | |
| 827 | 1 838 | 2 847 | |
| 828 | 1 839 | 985 | |
| | | 996 | |
| NOTE | | | |
| To fault isolate environmental control systems failures other than those listed un this table, do system test in A1-F18AC-410-200 most applicable to the fault description. The system test can be stopped after completion of the step which reveals the fault and remedy. | | | |
| Avionics cooling | | | |
| • AV AIR HOT caution message and no other indication. | | Do troubleshooting procedure (A1-F18AC-410-200, WP165 00). | |
| • AV AIR HOT caution message with other indications/conditions. | | Do troubleshooting procedure (A1-F18AC-FIM-000, WP086 00). | |
| • Avionics ground cooling fan. | | | |
| • • Abnormally noisy with engine(s) operating. | | Do troubleshooting procedure (A1-F18AC-410-200, WP090 00). | |
| • • Abnormally noisy without engine(s) operating. | | Replace avionics ground cooling fan (A1-F18AC-410-300, WP065 00). | |
| • • Will not shut off when ground power switches are set to AUTO during ground maintenance. | | Do troubleshooting procedure (A1-F18AC-FIM-000, WP109 00). | |
| • Output low. | | Do troubleshooting procedure (A1-F18AC-410-200, WP168 00). | |
| • Inoperative. | | Do troubleshooting procedure (A1-F18AC-410-200, WP166 00). | |

Table 8. Environmental Control Systems (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <ul style="list-style-type: none"> • Will not shut down when external cooling air is applied. • Will not shut down with APU running and AUG switch pulled. <p><u>Anti-G</u></p> <ul style="list-style-type: none"> • Low/no flow. | <p>Do troubleshooting procedure (A1-F18AC-410-200, WP170 00).</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP171 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP112 00).</p> |
| <p><u>Bleed Air</u></p> <ul style="list-style-type: none"> • No flow left side. • No flow right side. • Will not shut down. • EGT does not increase with both engines running and bleed air switch is positioned to OFF. | <p>Do troubleshooting procedure (A1-F18AC-410-200, WP163 00).</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP167 00).</p> <p>Replace ECS panel assembly (A1-F18AC-410-300, WP004 00).</p> <p>Do the below:</p> <ol style="list-style-type: none"> 1. When no airflow is exiting from the cockpit ECS louvers, do table 1 (A1-F18AC-410-200, WP012 00). 2. If airflow is exiting from the cockpit ECS louvers, do table 1 (A1-F18AC-270-200, WP003 00). |
| <p><u>Cabin air</u></p> <ul style="list-style-type: none"> • Too cold-good in MAN (manual) mode. • Too hot-good in MAN (manual) mode. • No/low flow in AUTO and in MANUAL. • No/low flow, cannot duplicate on ground. | <p>Do table 1 (A1-F18AC-410-200, WP098 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP097 00).</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP158 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP102 00).</p> |

Table 8. Environmental Control Systems (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <ul style="list-style-type: none"> Too hot, AV AIR HOT Caution message, no change in MAN. Cyclic flow to cabin. | <p>Perform maintenance for MMP Code 845, 846, or 847 as applicable WP003 00.</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP159 00).</p> |
| <u>Cabin Pressurization</u> | |
| <ul style="list-style-type: none"> Cockpit indication incorrect with low ECS flow. Cockpit indication incorrect with good ECS flow. | <p>Conduct A1-F18AC-410-200, WP158 00.</p> <ol style="list-style-type: none"> Do Cabin Pressure Test (A1-F18AC-410-200, WP017 00) and replace faulty components where required. If Cabin Pressure Test does not reveal pressure leak, replace Pressurized Compartment Altimeter AAU-38/A (8M-J021) (A1-F18AC-410-300, WP094 00). |
| <ul style="list-style-type: none"> Rear cockpit indication different than front by more than 2000 feet. | <ol style="list-style-type: none"> Do Cabin Pressure Test (A1-F18AC-410-200, WP017 00) and replace faulty components where required. Replace Pressurized Compartment Altimeter AAU-38/A (8M-J021) that displays incorrect pressure (A1-F18AC-410-300, WP094 00 or WP095 00). |
| <ul style="list-style-type: none"> Too high. | <p>Do table 1 (A1-F18AC-410-200, WP107 00).</p> |
| <ul style="list-style-type: none"> Will not dump. | <p>Do troubleshooting procedure (A1-F18AC-410-200, WP162 00).</p> |
| <ul style="list-style-type: none"> Electrical burning smell in cockpit. | <p>Do troubleshooting procedure (A1-F18AC-410 200, WP089 00).</p> |
| <u>Vent Suit</u> | |
| <ul style="list-style-type: none"> Too hot, good in MAN. | <p>Do table 1 (A1-F18AC-410-200, WP099 00).</p> |
| <ul style="list-style-type: none"> Too hot, no change in MAN. | <p>Do troubleshooting procedure (A1-F18AC-410-200, WP160 00).</p> |
| <ul style="list-style-type: none"> Too cold, good in MAN. | <p>Do table 1 (A1-F18AC-410-200, WP103 00).</p> |

Table 8. Environmental Control Systems (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| <ul style="list-style-type: none"> • Too cold, no change in MAN. • Air flow too high. • No/low airflow at altitude. • No airflow. <p><u>Windshield Anti-Ice/Rain Removal</u></p> <ul style="list-style-type: none"> • Flow will not shut off. • Not enough flow. • Windshield fogging. • WDSHLD HOT caution message displayed when WINDSHIELD ANTI ICE/RAIN removal switch set to OFF. <p>Radar Liquid Cooling System</p> <ul style="list-style-type: none"> • RICS door open with Weight-on-Wheels and MMP code 842. • RICS door closed with Weight-on-Wheels and MMP code 842. | <p>Do troubleshooting procedure (A1-F18AC-410-200, WP161 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP104 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP105 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP106 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP108 00).</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP164 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP113 00).</p> <p>Do table 1 (A1-F18AC-410-200, WP111 00).</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP025 00)</p> <p>Do troubleshooting procedure (A1-F18AC-410-200, WP144 00)</p> |
| <p style="text-align: center;">LEGEND</p> <p>1 162394 AND UP.</p> <p>2 163092 AND UP.</p> <p>3 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |

Table 9. Landing Gear System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <div>1 NOTE</div> <p>To fault isolate landing gear system failures other than those listed in this table, do normal landing gear system operational test and emergency landing gear system operational test (A1-F18AC-130-200, WP003 00). Stop to step where fault is shown to be isolated by observing normal indication that is directly related to fault description. The maintenance codes listed monitor system status:</p> <div>890 896 902 891 897 910 892 898 911 893 900 912 894 901 915 895</div> | |
| <u>NLG SYSTEM</u> | |
| Nose wheel shimmy during landing rollout and taxi. | <div>1. Make sure NLG tires are serviced correctly (A1-F18AC-LMM-000, WP026 00). 2. Inspect NLG upper and lower torque arms for free play. If any free play exists, replace NLG upper and lower torque arms (A1-F18AC-130-300, WP021 00). 3. If shimmy still exists, replace NLG wheel and tire assemblies (A1-F18AC-LMM-000, WP029 00). 4. If shimmy still exists, replace nose wheel steering power unit (A1-F18AC-570-300, WP063 00).</div> |
| <u>MLG SYSTEM</u> | |
| Left or Right MLG doors do not fully open and MLG contacts doors during extension. | <div>Do table 1 (A1-F18AC-130-200, WP003 00 and WP007 13).</div> |
| Left or Right MLG doors contact MLG during retraction. | <div>Replace MLG actuating cylinder (A1-F18AC-130-300, WP051 00).</div> |
| Momentary planing link failure indications | <div>Do planing ink switch rigging (A1-F18AC-130-300, WP018 00) Do main landing gear rigging operational test (A1-F18AC-130-200, WP005 00)</div> |
| LEGEND | |
| <div>1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> | |

Table 10. Fuel System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <div>2</div> NOTE The maintenance codes listed monitor system status: <div>658 943 947</div> <div>674 944 948</div> <div>941 945 951</div> <div>942 946</div> | |
| <u>Fuel Storage System</u> Fuel leaking from no. 1, no. 2, no. 3 or no. 4 cavity drain (there is no allowable leakage from the fuselage tanks). Fuel leaking from vent tank cavity drain (internal fuel tanks air pressure regulator and vent tank have a common drain). <u>Refuel/Defuel System</u> No. 1, no. 2, no. 3, no. 4 or internal wing fuel tanks do not precheck. Need to fault isolate to failed tank. Left or right internal wing fuel tank did not precheck. Fuel tank no. 1 does not precheck. Fuel tank no. 2 does not precheck. No. 1 fuel tank remains in precheck after precheck turned off. No. 2 fuel tank remains in precheck after precheck turned off. No. 3 fuel tank remains in precheck after precheck turned off. | Replace applicable fuel tank (A1-F18AC-460-300). Do table 3 (A1-F18AC-460-200, WP022 01). Do table 2 (A1-F18AC-460-200, WP003 00). Do table 1 (A1-F18AC-460-200, WP003 01). Do table 2 (A1-F18AC-460-200, WP003 01). Do table 3 (A1-F18AC-460-200, WP003 01). Replace no. 1 fuel tank fuel level control shutoff valve and high level pilot valve (A1-F18AC-460-300, WP057 00). Replace no. 2 fuel tank fuel level control shutoff valve and high level pilot valve (A1-F18AC-460-300, WP058 00). Replace no. 3 fuel tank fuel level control shutoff valve and high level pilot valve (A1-F18AC-460-200, WP059 00). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| No. 4 fuel tank remains in precheck after precheck turned off. | Replace no. 4 fuel tank fuel level control shutoff valve and high level pilot valve (A1-F18AC-460-300, WP060 00). |
| Left or right wing fuel tank remains in precheck after precheck turned off. | Replace wing refuel/defuel shutoff valve (A1-F18AC-460-300, WP061 00) and wing high level refuel/defuel pilot valve (A1-F18AC-460-300, WP062 00). |
| Aircraft does not refuel with engines operating, but cold refuels normally. | Replace refuel/defuel shutoff valve (A1-F18AC-460-300, WP054 00). |
| Fuel tank no. 3 does not precheck. | Do table 4 (A1-F18AC-460-200, WP003 01). |
| Fuel tank no. 4 does not precheck. | Do table 5 (A1-F18AC-460-200, WP003 01). |
| No. 1, no. 2, no. 3, no. 4, vent or internal wing fuel tanks do not drain. | Unclog drain valve tube (A1-F18AC-PIM-000). |
| Aircraft does not defuel. | Do table 3 (A1-F18AC-460-200, WP003 00). |
| Left or right external tank does not accept fuel. | Do table 12 (A1-F18AC-460-200, WP008 00). |
| Centerline external tank does not accept fuel. | Do table 13 (A1-F18AC-460-200, WP008 00). |
| <p style="text-align: center;">NOTE</p> <p>Fuel venting malfunctions are the result of uncontrolled fuel entry into a fuel tank. Troubleshooting is directed at determining the uncontrolled fuel source. Refer to the External Fuel System and to the Vent System for additional fuel venting related fault descriptions.</p> | |
| Aircraft prechecked, but vented fuel at high level shutoff (engine(s) off). | Do table 6 (A1-F18AC-460-200, WP003 01). |
| Aircraft prechecked but vented fuel at high level shutoff (engine(s) operating). | Do table 7 (A1-F18AC-460-200, WP022 00). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Left external tank did not precheck when refueling using electrical power - 161353 THRU 161761. | Do table 1 (A1-F18AC-460-200, WP008 00). |
| Right external tank did not precheck when refueling using electrical power - 161353 THRU 161761. | Do table 2 (A1-F18AC-460-200, WP008 00). |
| Centerline external tank did not precheck when refueling using electrical power - 161353 THRU 161761. | Do table 3 (A1-F18AC-460-200, WP008 00). |
| External tank did not precheck when refueling using electrical power - 161924 AND UP. | Do table 14 (A1-F18AC-460-200 WP008 00). |
| External tank does not manually precheck. | Do table 7 (A1-F18AC-460-200, WP008 00). |
| Centerline external tank fuel amount increasing when EXT TANKS CTR switch set to STOP. | Do table 8 (A1-F18AC-460-200 WP008 00). |
| Left or right external tank fuel amount increasing when EXT TANKS WING switch set to STOP. | Do table 9 (A1-F18AC-460-200, WP008 00). |
| <u>Inflight Refueling System</u> | |
| Probe does not extend. | Do table 1 (A1-F18AC-460-200, WP005 00). |
| Probe floodlight does not come on. | Do table 2 (A1-F18AC-460-200, WP005 00). |
| Probe does not retract. | Do table 3 (A1-F18AC-460-200, WP005 00). |
| Probe does not EMERGENCY EXTEND (probe extends and retracts normally). | Do table 4 (A1-F18AC-460-200 WP005 00). |
| PROBE UNLK does not display on Left Digital Display Indicator - 161353 THRU 162909. | Do table 5 (A1-F18AC-460-200, WP005 00). |
| PROBE UNLK does not display on Left Digital Display Indicator - 165092 AND UP. | Do table 6 (A1-F18AC-460-200 WP005 00). |
| Probe leaks. | Do table 2 (A1-F18AC-460-200, WP004 00). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <p><u>External Fuel System</u></p> <p>Left external tank did not precheck when refueling using electrical power - 161353 THRU 161761.</p> <p>Right external tank did not precheck when refueling using electrical power - 161353 THRU 161761.</p> <p>Centerline external tank did not precheck when refueling using electrical power - 161353 THRU 11761.</p> <p>External tank did not precheck when refueling using electrical power - 161924 AND UP.</p> <p>Left or right external tank slow to refuel or does not accept fuel.</p> <p>External tank(s) will not stop transfer.</p> <p>External tank leaks fuel from vent tube. Some leakage is normal due to fuel expansion and/or migration when tank sits for an extended period of time. No leakage should occur at high level shutoff.</p> <p>Centerline external tank slow to refuel or does not accept fuel.</p> <p>External tank does not manually precheck.</p> <p>External tank fills to about 1300 pounds then will not accept any more fuel until the filler cap is loosened.</p> <p>External tank fails to depressurize until the filler cap is loosened.</p> <p>Centerline external tank fuel amount increasing when EXT TANKS CTR switch set to STOP.</p> | <p>Do table 1 (A1-F18AC-460-200, WP008 00).</p> <p>Do table 2 (A1-F18AC-460-200, WP008 00).</p> <p>Do table 3 (A1-F18AC-460-200, WP008 00).</p> <p>Do table 14 (A1-F18AC-460-200, WP008 00).</p> <p>Do table 12 (A1-F18AC-460-200, WP008 00).</p> <p>Do table 4 (A1-F18AC-460-200, WP009 00).</p> <p>Defuel external tank to 1800 lbs minimum (A1-F18AC-PCM-000). Refuel external tank to high level shutoff (A1-F18AC-PCM-000). Inspect external tank for leakage. If leakage exists, replace external tank (A1-F18AC-LWS-000).</p> <p>Do table 13 (A1-F18AC-460-200, WP008 00).</p> <p>Do table 7 (A1-F18AC-460-200, WP008 00).</p> <p>Replace external tank (A1-F18AC-LWS-000).</p> <p>Replace external tank (A1-F18AC-LWS-000).</p> <p>Do table 8 (A1-F18AC- 460-200, WP008 00).</p> |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| NOTE | |
| <p>Fuel venting malfunctions are the result of uncontrolled fuel entry into a fuel tank. Troubleshooting is directed at determining the uncontrolled fuel source. Refer to Refuel/Defuel System and Vent System for additional fuel venting related fault descriptions.</p> | |
| Aircraft vents fuel when external tank/s are transferring; stops venting when EXT TANKS switch is bet to STOP. | Fault isolate to a failed refuel component. Refuel and precheck aircraft (A1-F18AC-PCM-000). |
| Aircraft vents fuel when EXT TANKS switch is set to STOP. | <p>This is a dual malfunction. Both the External Fuel Transfer System and the Vent System have malfunctioned.</p> <p>Do table 4, WP009 00 (A1-F18AC-460-200), then do table 7, WP022 00 (A1-F18AC-460-200).</p> |
| Left or right external tank fuel amount increasing when EXT TANKS WING switch set to STOP. | Do table 9 (A1-F18AC-460-200, WP008 00). |
| External tank not transferring. | Do table 3, (A1-F18AC-460-200, WP009 00). |
| Fuel migrates to external tank. | <p>Replace external fuel tank (cylindrical) refuel/transfer check valve (A1-F18AC-460-300, WP090 06).</p> |
| <u>Internal Fuel Transfer System</u> | |
| No. 4 fuel tank has a large amount of fuel when no. 1 fuel tank is empty. | <ol style="list-style-type: none"> Do table 1 (A1-F18AC-460-200, WP012 02). If aircraft passes test, do table 1 (A1-F18AC-460-200, WP012 06). |
| Unequal feed tank depletion. | <p>Adjust throttle levers, if unequal feed tank depletion still exists, do applicable table.</p> <p>On 161353 THRU 161761, do table 1 (A1-F18AC-460-200, WP012 08).</p> <p>On 161924 AND UP, do table 1 (A1-F18AC-460-200, WP012 09).</p> |
| Tank 1 and 4 not transferring until fuel low occurs. | Do table 12 (A1-F18AC-460-200, WP013 01). |

Table 10. Fuel System (Continued)




| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| Tank 4 empty, tank 1 more than 1400 LB, tank 1 starts transferring when fuel low occurs, 161520 THRU 161987. | Do table 13 (A1-F18AC-460-200, WP013 01). |
| Tank 4 empty, tank 1 more than 1400 LBs, tank 1 starts transferring when fuel low occurs, 162394 AND UP. | Do table 2 (A1-F18AC-460-200, WP016 02). |
| Wing fuel tanks do not transfer. | Do table 1 (A1-F18AC-460-200, WP018 00). |
| If aircraft appears to be transferring normally and suspect false transfer maintenance codes (945 or 946 or 947 or 948). | Do table 1 (A1-F18AC-460-200, WP027 01). |
| <u>Engine Fuel Supply System</u> | |
|  R BOOST LO | Do table 13 (A1-F18AC-460-200, WP012 07). |
|  L BOOST LO | Do table 14 (A1-F18AC-460-200, WP012 07). |
|  R and L BOOST LO | Do table 15 (A1-F18AC-460-200, WP012 07). |
| <u>Hot Fuel Recirculation System</u> | |
| L or R FUEL HOT caution displayed on Left Digital Display Indicator. | Do table 1 (A1-F18AC-460-200, WP015 00). |
| R AMAD and right FIT low. | Replace right heat exchanger wash filter (A1-F18AC-460-300, WP138 01). If malfunction still exists do table 1 (A1-F18AC-460-200, WP015 00). |
| L AMAD and left FIT low. | Replace left heat exchanger wash filter (A1-F18AC-460-300, WP138 01). If malfunction still exists do table 1 (A1-F18AC-460-200, WP015 00). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <u>Fuel Pressurization System</u> TANK PRESS caution displayed on Left Digital Display Indicator. TANK PRESS caution displayed with any associated ECS anomaly. | Do table 1 (A1-F18AC-460-200, WP021 00). Do table 1 (A1-F18AC-410-200, WP004 00). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <p><u>Vent System</u></p> <p style="text-align: center;">NOTE</p> <p>Fuel Venting malfunctions are the result of uncontrolled fuel entry into a fuel tank. Troubleshooting is directed at determining the uncontrolled fuel source. Refer to Refuel/Defuel System and External Fuel System for additional fuel related fault descriptions.</p> <p>Aircraft prechecked but vented fuel at high level shutoff:</p> <p>Engine(s) off</p> <p>Engine(s) operating</p> <p>Aircraft vents fuel.</p> <p>Aircraft vents fuel when external tank(s) are transferring, stops when EXT TANKS switch is set to STOP.</p> <p>Aircraft vents fuel when EXT TANKS switch is set to STOP.</p> <p>Aircraft vents fuel during climb only.</p> <p><u>Fuel Quantity Gaging System</u></p> <p>OFF flag red and ID flag yellow with electrical power on.</p> <p>ID flag yellow with electrical power on.</p> | |
| <p>Do table 6 (A1-F18AC-460-200, WP003 01).</p> <p>Do table 7 (A1-F18AC-460-200, WP022 00).</p> <p>Do table 7 (A1-F18AC-460-200, WP022 00).</p> <p>Fault isolate to a failed refuel component. Refuel and precheck aircraft (A1-F18AC-PCM-000). Then do table 2 (A1-F18AC-460-200, WP003 00).</p> <p>This is a dual malfunction. Both the External Fuel Transfer System and the Vent System have malfunctioned. Do table 4 (A1-F18AC-460-200, WP009 00) then do table 7 (A1-F18AC-460-200, WP022 00).</p> <p>Do table 3 (A1-F18AC-460-200, WP021 00).</p> <p>Do table 1 (A1-F18AC-460-200, WP025 00).</p> <p>Do table 2 (A1-F18AC-460-200, WP025 00).</p> | |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Repeater indicator reading wrong. | Do table 3 (A1-F18AC-460-200, WP025 00). |
| FUEL QTY indicator indications wrong (high, low or erratic). | Verify capacitance at the intermediate device by doing table 1 (A1-F18AC-460-200, WP027 00). Verify intermediate device output to the FUEL QTY indicator by doing table 1 (A1-F18AC-460-200, WP027 02). |
| BINGO not displayed, 161352 THRU 161761 BEFORE F18 AFC 53. | Do table 4 (A1-F18AC-460-200, WP025 00). |
| BINGO not displayed, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 53. | Do table 5 (A1-F18AC-460-200, WP025 00). |
| Erratic BINGO caution at any BINGO setting. | Replace fuel quantity gaging intermediate device (A1-F18AC-460-300, WP162 00). If malfunction still exists, ON 161353 THRU 161761 BEFORE F18 AFC 53, do table 4, (A1-F18AC-460-200, WP025 00 ON 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 053, do table 5, (A1-F18AC-460-200, WP025 00). |
| BINGO caution remains on. | On 161353 THRU 161761 BEFORE F18 AFC 53, do table 6 (A1-F18AC-460-200, WP025 00). On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 053, do table 7 (A1-F18AC-460-200, WP025 00). |
| <u>Fuel Low Level Warning System</u> | |
| FUEL LO caution light not displayed on caution light indicator panel when selecting BIT. (FUEL LO does display on Left Digital Display Indicator. | Do table 1 (A1-F18AC-460-200, WP026 00). |
| FUEL LO caution not displayed on Left Digital Display Indicator when selecting BIT (FUEL LO caution light does display on caution light indicator panel). | Do table 2 (A1-F18AC-460-200, WP026 00). |
| FUEL LO caution not displayed on Left Digital Display Indicator and caution light indicator panel when selecting BIT - 161353 THRU 161761. | Do table 3 (A1-F18AC-460-200, WP026 00). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| FUEL LO caution not displayed on Left Digital Display Indicator and caution light indicator panel when selecting BIT - 161924 THRU 161987. | Do table 1 (A1-F18AC-460-200, WP026 02). |
| FUEL LO caution not displayed on Left Digital Display Indicator and caution light indicator panel when selecting BIT - 162394 AND UP. | Do table 2 (A1-F18AC-460-200, WP026 02). |
| FUEL low or bingo voice alert not heard in headset. | Do table 4 (A1-F18AC-460-200, WP026 00). |
| FUEL LO not on when fuel amount less than 800 ± 100 LBS in no. 2 or no. 3 fuel tank. | Do table 1 (A1-F18AC-460-200, WP026 01). |
| FUEL LO on when fuel amount above 800 ± 100 LBS in no. 2 or no. 3 fuel tank. | Do table 2 (A1-F18AC-460-200, WP026 01). |
| Flight Controls voice alert not heard in headset and G-LIM 7.5G caution is displayed during fuel BIT. | If no other fuel BIT failures occur, do to Table 1, WP004 00. |
| G-LIM 7.5G caution does not appear during fuel BIT. | Refer to Figure 28, WP004 00. |
| <u>Center of Gravity (CG) Control System</u> | |
| CG Caution Displayed Inflight with left engine off, high state of transfer fuel and nose up attitude. | 1. Do table 1, 3, or 4, (A1-F18AC-460-200, WP035 00). 2. If malfunction is not duplicated, no further troubleshooting is required. The malfunction is inherent to the fuel system design. |
| CG Caution Displayed Inflight- 161520 THRU 161761 before F/A-18 AFC 48 and F/A-18 AFC 53. | Do table 1 (A1-F18AC-460-200, WP035 00). |
| CG Caution Displayed Inflight- 161924 THRU 161987, also 161353 THRU 161761 after F/A-18 AFC 53 and before F/A-18 AFC 48. | Do table 3 (A1-F18AC-460-200, WP035 00). |
| CG Caution Displayed Inflight- 162394 AND UP, also 161353 THRU 161987 after F/A-18 AFC 48. | Do table 4 (A1-F18AC-460-200, WP035 00). |
| CG caution not displayed when selecting BIT. | Do table 2 (A1-F18AC-460-200, WP035 00). |
| CG caution remained on after BIT. | Do table 1 (A1-F18AC-460-200, WP035 01). |

Table 10. Fuel System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| LEGEND | |
| 1 163119 AND UP, ALSO 161353 THRU 161924 BEFORE F18 IAFc-056 OR 161353 THRU 163118 AFTER AFC 070. | |
| 2 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 11. Hydraulic System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| 1 NOTE | |
| The Maintenance Codes Listed Monitor System Status: | |
| | 997 998 999 |
| Hydraulic System 1 - Pressure Differential Pressure Indicator popped. | 1. Replace Hydraulic System 1 - Pressure filter element (A1-F18AC-450-300, WP006 00). 2. Take fluid sample of Hydraulic System 1. If fluid is not Navy class V or better, do decontamination of system (A1-F18AC-LMM-000). 3. Reset differential pressure indicator. 4. If indicator extends on next flight, replace Hydraulic System 1 - Pressure Differential Pressure Indicator (A1-F18AC-450-300, WP006 00). |
| Hydraulic System 1 - Return Differential Pressure Indicator popped. | 1. Replace Hydraulic System 1 - Return filter element (A1-F18AC-450-300, WP006 00). 2. Take fluid sample of Hydraulic System 1. If fluid is not Navy class V or better, do decontamination of system (A1-F18AC-LMM-000). 3. Reset differential pressure indicator. 4. If indicator extends on next flight, replace Hydraulic System 1 - Return Differential Pressure Indicator (A1-F18AC-450-300, WP006 00). |

Table 11. Hydraulic System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Hydraulic System 2 - Pressure Differential Pressure Indicator popped. | <ol style="list-style-type: none"> 1. Replace Hydraulic System 2 - Pressure filter element (A1-F18AC-460-300, WP006 00). 2. Take fluid sample of Hydraulic System 1. If fluid is not Navy class V or better, do decontamination of system (A1-F18AC-LMM-000). 3. Reset differential pressure indicator. 4. If indicator extends on next flight, replace Hydraulic System 2 - Pressure Differential Pressure Indicator (A1-F18AC-450-300, WP006 00). |
| Hydraulic System 2 - Return Differential Pressure Indicator popped. | <ol style="list-style-type: none"> 1. Replace Hydraulic System 2 - Return filter element (A1-F18AC-450-300, WP006 00). 2. Take fluid sample of Hydraulic System 1. If fluid is not Navy class V or better, do decontamination of system (A1-F18AC-LMM-000). 3. Reset differential pressure indicator. 4. If indicator extends on next flight, replace Hydraulic System 2 - Return Differential Pressure Indicator (A1-F18AC-450-300, WP006 00). |
| Hydraulic System 1- Case Drain Differential Pressure Indicator popped. | <ol style="list-style-type: none"> 1. Replace Hydraulic System 1 - Case Drain filter element (A1-F18AC-450-300, WP004 00). 2. Take fluid sample of Hydraulic System 1. If fluid is not Navy Class V or better, do decontamination of system (A1-F18AC-LMM-000). 3. Reset differential pressure indicator. 4. If indicator extends on next flight, replace Hydraulic System 1 - Case Drain Filter Unit (A1-F18AC-450-300, WP004 00). |
| Hydraulic System 2 - Case Drain Differential Pressure Indicator popped. | <ol style="list-style-type: none"> 1. Replace Hydraulic System 2 - Case Drain filter element (A1-F18AC-450-300, WP004 00). 2. Take fluid sample of Hydraulic System 2. If fluid is not Navy class V or better, do decontamination of system (A1-F18AC-LMM-000). 3. Reset differential pressure indicator. 4. If indicator extends on next flight, replace Hydraulic System 2 - Case Drain Filter Unit (A1-F18AC-450-300, WP004 00). |
| Air/Contamination in Hydraulic System 1/2. | Do Air bleed/decontamination - Hydraulic System (A1-F18AC-LMM-000, WP010 00). |
| Hydraulic System Fluid Overheat. | Do table 9, Hydraulic System Fluid Overheat (A1-F18AC-450-200, WP003 00). |

Table 11. Hydraulic System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| Hydraulic System Reservoir Fluid Transfer. | Do table 8, Hydraulic System Fluid Transfer (A1-F18AC-450-200, WP003 00). |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 12. Instrument Systems

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| 1 NOTE | |
| The maintenance codes listed monitor pitot static system status: | |
| | 834 835 |
| Mechanical Aircraft Clock ABU-24/A fail. | Replace Mechanical Aircraft Clock ABU-24/A (A1-F18AC-510-300, WP013 00). |
| L shaped pitot static tubes heat on ground with ANTI-ICE PITOT switch in AUTO. | Do Pitot Static System Heaters Test (A1-F18AC-510-200, WP003 00). |
| Standby Instrument indications do not agree with HUD indications. | Do Pitot Static System and Related Instruments Leak and Functional Test (A1-F18AC-510-200, WP003 00). |
| Standby Altimeter indication does not agree to within ± 320 feet of HUD displayed altitude at 40,000 feet altitude. | Do Pitot Static System and Related Instruments Leak and Functional Test (A1-F18AC-510-200, WP003 00). |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 13. Mission Computer System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------------------------|
| 1 NOTE | |
| The maintenance codes listed monitor system status: | |
| | 004 036 029 037 032 145 034 |

Table 13. Mission Computer System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <p>Make sure Electrical Equipment Rack is installed and connectors are connected before troubleshooting.</p> <p>ON 162394 THRU 163175 AFTER F/A-18 AFC 253 MT-4955/APG-65 (A1-F18AC-742-300, WP014 00)</p> <p>ON 162394 THRU 163175 AFTER F/A-18 AFC 292 MT-6809/APG-73 (A1-F18AH-742-300, WP014 00)</p> | |
| MC CONFIG caution displayed. | Do troubleshooting procedure (A1-F18AC-FIM-000, WP170 00). |
| MC1 caution displayed on digital display indicator. | Do table 2 (A1-F18AC-741-200, WP003 00). |
| CSC NOT RDY BIT status message on BIT control display. | Do Control-Converter C-10382/A Test (A1-F18AC-741-200, WP005 00). |
| MC2 caution displayed on digital display indicator. | Do table 3 (A1-F18AC-741-200, WP003 00). |
| MC2 NOT RDY displayed on digital display indicator. | Do Power Up Test (A1-F18AC-741-200, WP003 00). |
| CSC OH BIT status message on BIT control display. | <ol style="list-style-type: none"> 1. Do Control-Converter C-10382/A test (A1-F18AC-741-200, WP005 00). 2. If fault descriptor has occurred during 2 consecutive nights, replace Control-Converter C-10382/A (A1-F18AC-741-300, WP005 00). |
| CSC RESTRT BIT status message on BIT control display. | Do Control-Converter C-10382/A Test (A1-F18AC-741-200, WP005 00). |
| LEGEND | |
| <div>1</div> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 14. Radar System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <div>2</div> NOTE The maintenance codes listed monitor system status: | |
| 010 040 041 042 043 | 044 045 046 047 048 <div>1</div> 068 <div>1</div> 069 810 |
| RDR NOT RDY BIT status message on BIT control display. | Do Operational Readiness Test (A1-F18AC-742-200, WP004 00): <div>3</div> (A1-F18AH-742-200, WP004 00): <div>4</div> |
| RDR OH BIT status messsge on BIT control display. | Do table 6 (A1-F18AC-742-200, WP005 00): <div>3</div> (A1-F18AH-742-200, WP005 00): <div>4</div> |
| RDR RESTRT BIT status message on BIT control display. | Do Operational Readiness Test (A1-F18AC-742-200, WP004 00): <div>3</div> (A1-F18AH-742-200, WP004 00): <div>4</div> |
| Target not in TD box. | Do table 7 on 161353 THRU 163175 (A1-F18AC-742-200, WP009 00): <div>3</div> (A1-F18AH-742-200, WP009 00): <div>4</div> |
| <div>1</div> Flashing OVHT on radar display. | Do table 6 (A1-F18AC-742-200, WP005 00): <div>3</div> |
| No radar video display. | Do table 2 (A1-F18AC-742-200, WP009 00): <div>3</div> (A1-F18AH-742-200, WP009 00): <div>4</div> |
| Iron cross on radar display. | Do maintenance BIT (A1-F18AC-742-200, WP007 00): <div>3</div> (A1-F18AH-742-200, WP007 00): <div>4</div> |
| Radome (door 1) will not open or close. | See A1-F18AC-SRM-220, WP003 00. |
| Any map gain malfunction. | Do table 1 (A1-F18AC-742-200, WP010 00): <div>3</div> (A1-F18AH-742-200, WP010 00): <div>4</div> |
| Any radar elevation control malfunction. | Do table 1 (A1-F18AC-742-200, WP011 00): <div>3</div> (A1-F18AH-742-200, WP011 00): <div>4</div> |

Table 14. Radar System (Continued)







| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| Any throttle designator control malfunction. | Do table 1 (A1-F18AC-742-200, WP012 00).  3 (A1-F18AH-742-200, WP012 00).  4 |
| LEGEND | |
|  1 With Computer-Power Supply CP-1325/APG-65 CONFIG/IDENT Number 102B AND UP and Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 84A AND UP (A1-F18AC-SCM-000). | |
|  2 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |
|  3 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253. | |
|  4 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292. | |

Table 15. Stores Management System


| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
|  1 NOTE | |
| The maintenance codes listed monitor system status: | |
| 006 | 078 376 |
| 017 | 079 377 |
| 070 | 080 378 |
| 071 | 081 379 |
| 072 | 082 380 |
| 073 | 083 381 |
| 074 | 084 382 |
| 076 | 085 383 |
| 077 | 375 384 |
| | 385 |
| AIRCRAFT MASTER MODE | |
| Can not change aircraft master mode. | ON F/A-18A, do table 1 (A1-F18AC-740 200, WP010 32). |
| | ON F/A-18B, do table 2 (A1-F18AC-740 200, WP010 32). |
| Can not select A/A aircraft master mode. | ON F/A-18A, do table 1 (A1-F18AC-740 200, WP010 33). |
| | ON F/A-18B, do table 2 (A1-F18AC-740 200, WP010 33). |

Table 15. Stores Management System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| Cannot select A/G aircraft master mode. | ON F/A-18A, do table 1 (A1-F18AC-740-200, WP010 34). ON F/A-18B, do table 2 (A1-F18AC-740 200, WP010 34). |
| <u>POWER UP BIT</u> | |
| SMS runs BIT successfully but does not run Power Up BIT. | Do table 3 (A1-F18AC-740-200, WP010 01). |
| RESTRT displayed during power-up BIT. | Do table 1 (A1-F18AC-740-200, WP009 00). |
| <u>BIT</u> | |
| SMS BIT Control Display | |
| SMS - NOT RDY displayed | Do SMS Initiated Built-In Test (A1-F18AC-740-200, WP009 00). |
| • • SMS - OH displayed | Do table 1 (A1-F18AC-740-200, WP010 02). |
| • • SMS DEGD displayed | Do maintenance action for system maintenance code (table 1, WP003 00). |
| • • SMS - DEGD and OH displayed | Do table 2 (A1-F18AC-740-200, WP010 02). |
| • • SMS - MUX FAIL | Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). |
| • • SMS - NO GO displayed | Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). |
| • • SMS - RESTRT | Do SMS Initiated Built-In Test (A1-F18AC-740-200, WP009 00). |
| • • SMS - IN TEST not displayed during BIT | Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP009 00). |
| • • SMS - OPRNL GO displayed | Do maintenance actions for related MMP codes (WP003 00). |
| • WPN BIT Control Display | |
| • • WPN - NOT RDY displayed | Do SMS Initiated Built-In Test (A1-F18AC-740-200, WP009 00). |
| • • WPN - DEGD displayed | Do maintenance action for system maintenance code (table 1, WP003 00). |

Table 15. Stores Management System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| <ul style="list-style-type: none">• • WPN - MUX FAIL | Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). |
| <ul style="list-style-type: none">• • WPN - NO GO displayed | Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP006 00). |
| <ul style="list-style-type: none">• AWW4 BIT Control Display | |
| <ul style="list-style-type: none">• • AWW4 - NOT RDY displayed | Do SMS Initiated Built-In Test (A1-F18AC-740-200, WP009 00). |
| <ul style="list-style-type: none">• • AWW4 - DEGD displayed | Do maintenance action for system maintenance code (table 1, WP003 00). |
| <ul style="list-style-type: none">• • AWW4 - NO GO displayed | Replace Armament Computer CP-1342/AYQ-9(V) (A1-F18AC-740-300, WP003 00). |
| <ul style="list-style-type: none">• HARM BIT Control Display | |
| <ul style="list-style-type: none">• • HARM - NOT RDY displayed | Do SMS Initiated Built-In Test (A1-F18AC-740-200, WP009 00). |
| <ul style="list-style-type: none">• • HARM - RESTRT displayed | Do SMS Initiated Built-In Test (A1-F18AC-740-200, WP009 00). |
| <ul style="list-style-type: none">• • HARM - DEGD displayed | Do maintenance action for system maintenance code (table 1, WP003 00). |

Table 15. Stores Management System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <ul style="list-style-type: none"> • • HARM - NO GO displayed • • HARM - IN TEST not displayed during BIT • Maintenance Monitor Panel (MMP) Codes | <p>Replace Command Launch Computer CP-1001/AWG (A1-F18AC-740-300, WP010 00).</p> <p>Replace Command Launch Computer CP-1001/AWG (A1-F18AC-740-300, WP010 00).</p> <p>Do maintenance action for system maintenance codes (table 1, WP003 00).</p> |
| <p><u>Power-up BIT</u></p> <p>IBIT runs successfully but fails power-up BIT</p> | <p>Do the below:</p> <ol style="list-style-type: none"> 1. Replace landing gear control unit (LGCU) (A1-F18AC-130-300, WP003 00). 2. If problem remains, do table 4 (A1-F18AC-740-200, WP014 00). |
| <p><u>Displays</u></p> <ul style="list-style-type: none"> • MASTER ARM • • No Arm displayed (in flight) • • No ARM displayed (ground maintenance) • • No SAFE displayed • Store Count • • Station 1 • • • No missile symbol • • Station 2 • • • Bomb - Count not correct • • • HARM - No 1 displayed • • • HP/THP - No 1 displayed • • • MAV - No 1 displayed | <p>Do table 1 (A1-F18AC-740-200, WP010 35).</p> <p>Do table 1 (A1-F18AC-740-200, WP010 17).</p> <p>Do table 2 (A1-F18AC-740-200, WP010 17).</p> <p>Do table 1 (A1-F18AC-740-200, WP010 22).</p> <p>Do table 2 (A1-F18AC-740-200, WP010 22).</p> <p>Do table 3 (A1-F18AC-740-200, WP010 22).</p> <p>Do table 1 (A1-F18AC-740-200, WP029 09).</p> <p>Do table 1 (A1-F18AC-740-200, WP010 23).</p> |

Table 15. Stores Management System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---------------------------------|---|
| • • • AIM-7 - No missile symbol | Do table 2 (A1-F18AC-740-200, WP010 23). |
| • • • AIM-9 - Count not correct | Do table 3 (A1-F18AC-740-200, WP010 23). |
| • • • WE/WEDL - No 1 displayed | Do table 4 (A1-F18AC-740-200, WP010 23). |
| • • Station 3 | |
| • • • Bomb - Count not correct | Do table 1 (A1-F18AC-740-200, WP010 24). |
| • • • FUEL - No 1 displayed | Do table 2 (A1-F18AC-740-200, WP010 24). |
| • • • HARM - No 1 displayed | Do table 3 (A1-F18AC-740-200, WP010 24). |
| • • • HP/THP - No 1 displayed | Do table 2 (A1-F18AC-740-200, WP029 09). |
| • • • MAV - No 1 displayed | Do table 1 (A1-F18AC-740-200, WP010 25). |
| • • Station 4 | |
| • • • No missile symbol | Do table 2 (A1-F18AC-740-200, WP010 25). |
| • • Station 5 | |
| • • • Bomb - Count not correct | Do table 8 (A1-F18AC-740-200, WP010 25). |
| • • • FUEL - No 1 displayed | Do table 1 (A1-F18AC-740-200, WP010 26). |
| • • • WEPD - No 1 displayed | Do table 2 (A1-F18AC-740-200, WP010 26). |
| • • Station 6 | |
| • • • No missile symbol | Do table 3 (A1-F18AC-740-200, WP010 26). |
| • • Station 7 | |
| • • • Bomb - Count not correct | Do table 1 (A1-F18AC-740-200, WP010 27). |

Table 15. Stores Management System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---------------------------------|---|
| • • • FUEL - No 1 displayed | Do table 2 (A1-F18AC-740-200, WP010 27). |
| • • • HARM - No 1 displayed | Do table 3 (A1-F18AC-740-200, WP010 27). |
| • • • HP/THP - No 1 displayed | Do table 3 (A1-F18AC-740-200, WP029 09). |
| • • • MAV - No 1 displayed | Do table 1 (A1-F18AC-740-200, WP010 28). |
| • • Station 8 | |
| • • • Bomb - Count not correct | Do table 2 (A1-F18AC-740-200, WP010 28). |
| • • • HARM - No 1 displayed | Do table 3 (A1-F18AC-740-200, WP010 28). |
| • • • HP/THP - No 1 displayed | Do table 4 (A1-F18AC-740-200, WP029 09). |
| • • • MAV - No 1 displayed | Do table 1 (A1-F18AC-740-200, WP010 29). |
| • • • AIM-7 - No missile symbol | Do table 2 (A1-F18AC-740-200, WP010 29). |
| • • • AIM-9 - Count not correct | Do table 3 (A1-F18AC-740-200, WP010 29). |
| • • • WE/WEDL - No 1 displayed | Do table 1 (A1-F18AC-740-200, WP010 30). |
| • • Station 9 | |
| • • • No missile symbol | Do table 2 (A1-F18AC-740-200, WP010 30). |
| <u>WEAPON SELECT</u> | |
| • GUN - No gun select | Do table 3 (A1-F18AC-740-200, WP010 31). |
| • AIM-7 - No AIM-7 SEL | Do table 1 (A1-F18AC-740-200, WP010 31). |
| • AIM-9 - No AIM-9 SEL | Do table 2 (A1-F18AC-740-200, WP010 31). |

Table 15. Stores Management System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 16. Inertial Navigation System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| 1 NOTE | |
| The maintenance codes listed monitor system status: | |
| | 005 131 115 132 116 |
| Attitude Reference Indicator ARU-48/A does not operate on battery. | Do table 1 (A1-F18AC-730-200, WP017 00). |
| Attitude Reference Indicator ARU-48/A does not operate on aircraft power. | F/A-18B, do table 2 (A1-F18AC-730-200, WP017 00). F/A-18A, do table 6 (A1-F18AC-730-200, WP017 00). |
| Horizon line on HUD does not operate correctly with ATTD switch in STBY. | Do Attitude Reference Indicator Operational Test (A1-F18AC-730-200, WP014 00). |
| INS ATT displayed on DDI. | Do table 2 (A1-F18AC-730-200, WP016 00). |
| INS NOT RDY BIT status message on BIT control display. | Do table 2 (A1-F18AC-730-200, WP016 00). |
| INS OH BIT status message on BIT control display. | Do the below: 1. When INS in ground operation, see table 2 (A1-F18AC-730-200, WP005 00). 2. If INS in carrier operation, see table 2 (A1-F18AC-730-200, WP006 00). |
| INS RESTRT BIT status message on BIT control display. | Do the below: 1. When INS in ground operation, see table 2 (A1-F18AC-730-200, WP005 00). 2. If INS in carrier operation, see table 2 (A1-F18AC-730-200, WP006 00). |
| Standby compass deviation range (most positive deviation - most negative deviation) exceeds 8°. | Replace Standby Compass AQU-3/A (A1-F18AC-730-300, WP010 00). |
| Rear cockpit standby compass deviation range (most positive deviation - most negative deviation) exceeds 8°. | Replace Rear Standby Compass AQU-3/A (A1-F18AC-730-300, WP010 00). |

Table 16. Inertial Navigation System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <p style="text-align: center;">NOTE</p> <p style="text-align: center;">The INS Ground Speed Error Performance Chart, figure 2 (this WP) applies only when a full ground alignment was done before flight.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Excessive navigation errors ground operation.</p> </div> <div style="width: 45%; border-left: 1px solid black; padding-left: 10px;"> <p>Do troubleshooting procedure (A1-F18AC-730-200, WP016 02).</p> </div> </div> | |
| <p style="text-align: center;">NOTE</p> <p style="text-align: center;">The INS Position Error Performance Chart, figure 1 (this WP) applies only when a full carrier alignment was done before flight.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Excessive navigation errors carrier operation; trouble-shoot as follows:</p> <ul style="list-style-type: none"> • Excessive position error. • Excessive position error during 2 consecutive flights. • Excessive ground speed error. • Excessive ground speed error during 2 consecutive flights. </div> <div style="width: 45%; border-left: 1px solid black; padding-left: 10px;"> <p>Do the substeps below:</p> <ol style="list-style-type: none"> 1. Get the position error data from VIDS-MAF 2. Using figure 1 with position error data, plot the error. 3. When position error in region I, the error is acceptable. 4. If position error in region II, reflly aircraft. 5. If position error in region III, replace inertial navigation unit (A1-F18AC-730-300, WP004 01). <p>Replace inertial navigation unit (A1-F18AC-730-300, WP004 00).</p> <p>Do substeps below:</p> <ol style="list-style-type: none"> 1. Get the ground speed error data from VIDS-MAF. 2. Using figure 2 with ground speed error data, plot the error. 3. When ground speed error in region I, the error is acceptable. 4. If ground speed error in region II, reflly aircraft. 5. If ground speed error in region III, replace inertial navigation unit (A1-F18AC-730-300, WP004 01). <p>Replace inertial navigation unit (A1-F18AC-730-300, WP004 00).</p> </div> </div> | |
| LEGEND | |
| <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> | |
| F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

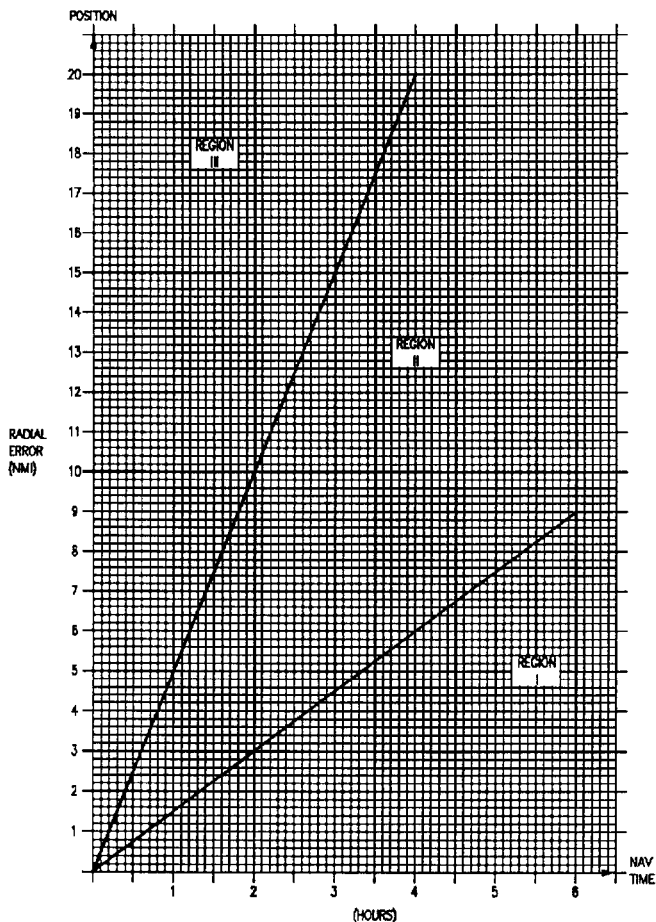
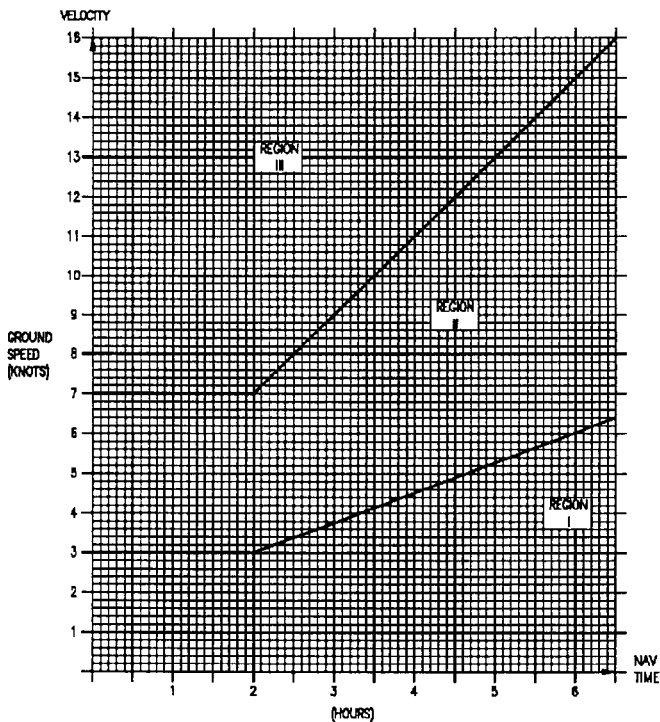


Figure 1. INS Position Error Performance Chart



NOTE:
IF NAV TIME NOT AVAILABLE, USE
FLIGHT TIME PLUS 0.3 HOURS.

Figure 2. INS Ground Speed Error Performance Chart

Table 17. Air Data Computer System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div>1</div> NOTE The maintenance codes listed monitor system status: 001 127 131 125 129 132 126 130 133 134 NOTE For faults not listed in this table, do Air Data Computer CP-1334/A Test (A1-F18AC-560-200, WP003 00). ADC NOT RDY BIT status message on BIT control display. ADC RESTRT BIT status message on BIT control display. On 161925 AND UP, ADC DEGD after maintenance BIT and no maintenance codes on Digital Display Indicator ID-2150/ASM-612. | |
| Do Air Data Computer CP-1334/A Test (A1-F18AC-560-200, WP003 00). Do Air Data Computer CP-1334/A Test (A1-F18AC-560-200, WP003 00). Replace Air Data Computer CP-1334/A (A1-F18AC-560-300, WP003 00). | |
| LEGEND | |
| <div>1</div> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 18. Maintenance Status Display and Recording System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div>1</div> NOTE The maintenance codes listed monitor system status: 030 169 604 165 600 605 166 601 812 167 602 926 168 603 SDRS NOT RDY BIT status message on BIT control display. SDRS RESTRT BIT status message on BIT control display. | |
| Do table 3 (A1-F18AC-580 200, WP003 00). Do Signal Data Recording Set AN/ASM-612 Test (A1-F18AC-580 200, WP003 00). | |

Table 18. Maintenance Status Display and Recording System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Nose wheelwell DDI inoperative. | Do table 4 (A1-F18AC-580-200, WP003 00). |
| Code 995 not displayed when MAINTENANCE CODE DISPLAY switch is pressed after fluids test. | Do table 2 (A1-F18AC-580-200, WP006 00). |
| LEGEND | |
| <div>1</div> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 19. Head-Up Display

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <div>1</div> NOTE | |
| Maintenance code 098 monitors system status. | |
| HUD NOT RDY BIT status message on BIT control display. | Do displays test (A1-F18AC-745-200, WP004 00). |
| HUD RESTRT BIT status message on BIT control display. | Do displays test (A1-F18AC-745-200, WP004 00). |
| HUD has no display. | Do table 4 (A1-F18AC-745-200, WP006 00). |
| LEGEND | |
| <div>1</div> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 20. Intercommunication and Audio System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| <div>1</div> NOTE | |
| Maintenance code 146 monitors system status. For faults not listed in this table, do table 1 (A1-F18AC-600-200, WP023 00). | |
| ICS NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-600-200, WP021 00). |
| ICS RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-600-200, WP021 00). |

Table 20. Intercommunication and Audio System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| “Flight Computer Hot” voice Alert not heard in headset. | Do table 1 (A1-F18AC-FIM-000, WP160 00). |
| “Flight Controls” voice alert not heard in headset. | Do table 1 (A1-F18AC-FIM-000, WP160 00). |
| “Engine Left” voice alert not heard in headset. | Do table 1 (A1-F18AC-FIM-000, WP160 00). |
| “Engine Right” voice alert not heard in headset. | Do table 1 (A1-F18AC-FIM-000, WP160 00). |
| MASTER CAUTION light but no master caution tone in headset. | Do table 1 (A1-F18AC-FIM-000, WP161 00). |

LEGEND

1

F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.

Table 21. Electronic Altimeter System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div>1NOTE</div> <p>Maintenance code 147 monitors system status.</p> <div><div>Radar Altimeter System cycles above 5000 feet.</div><div>Electronic Altimeter System continually recycles in flight or provides erroneous altitude data.</div><div>RALT NOT RDY BIT status message on BIT control display.</div><div>RALT RESTRT BIT status message on BIT control display.</div><div>RALT fails to function correctly or RALT DEGD status message on BIT control display.</div></div> <div><div>Replace Receiver-Transmitter RT-1015()/APN-194(V) (A1-F18AC-600-300, WP021 00).</div><div>1. Do table 1 (A1-F18AC-600-200, WP045 01). 2. If no loss detected, replace Receiver-Transmitter RT-1015()/APN-194(V) (A1-F18AC-600-300, WP021 00).</div><div>Do table 1 (A1-F18AC-600-200, WP043 00).</div><div>Do table 1 (A1-F18AC-600-200, WP043 00).</div><div>Do table 1 (A1-F18AC-600-200, WP043 00).</div></div> | |

LEGEND

1

F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.

Table 22. Instrument Landing System

| FAULT DESCRIPTION | MAINTENANCE ACTION | | | | | | | | | | |
|---|---|------------------------------------|---|---|---|--|---|---|---|---|---|
| <div>1 NOTE</div> <p>Maintenance code 148 monitors system status.</p> <table border="1"> <tr> <td>ILS EL/AZ needles remain centered.</td><td>Do table 2 (A1-F18AC-630-200, WP007 02).</td></tr> <tr> <td>ILS MAN channelization selection inoperative.</td><td>Do table 2 (A1-F18AC-630-200, WP007 02).</td></tr> <tr> <td>ILS NOT RDY BIT status message on BIT control display.</td><td>Do table 1 (A1-F18AC-630-200, WP003 00).</td></tr> <tr> <td>ILS RESTRT BIT status message on BIT control display.</td><td>Do table 1 (A1-F18AC-630-200, WP003 00).</td></tr> <tr> <td>ILS UFC channelization selection inoperative. ILS BIT status displays GO.</td><td>Do table 1 (A1-F18AC-630-200, WP007 02).</td></tr> </table> | | ILS EL/AZ needles remain centered. | Do table 2 (A1-F18AC-630-200, WP007 02). | ILS MAN channelization selection inoperative. | Do table 2 (A1-F18AC-630-200, WP007 02). | ILS NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP003 00). | ILS RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP003 00). | ILS UFC channelization selection inoperative. ILS BIT status displays GO. | Do table 1 (A1-F18AC-630-200, WP007 02). |
| ILS EL/AZ needles remain centered. | Do table 2 (A1-F18AC-630-200, WP007 02). | | | | | | | | | | |
| ILS MAN channelization selection inoperative. | Do table 2 (A1-F18AC-630-200, WP007 02). | | | | | | | | | | |
| ILS NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP003 00). | | | | | | | | | | |
| ILS RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP003 00). | | | | | | | | | | |
| ILS UFC channelization selection inoperative. ILS BIT status displays GO. | Do table 1 (A1-F18AC-630-200, WP007 02). | | | | | | | | | | |
| <div>LEGEND</div> <div>1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> | | | | | | | | | | | |

Table 23. Interference Blanker System

| FAULT DESCRIPTION | MAINTENANCE ACTION | | | | |
|--|---|--|---|---|---|
| <div>1 NOTE</div> <p>Maintenance code 149 monitors system status.</p> <table border="1"> <tr> <td>IBS NOT RDY BIT status message on BIT control display.</td><td>Do table 1 (A1-F18AC-760-200, WP003 00).</td></tr> <tr> <td>IBS RESTRT BIT status message on BIT control display.</td><td>Do table 1 (A1-F18AC-760-200, WP003 00).</td></tr> </table> | | IBS NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-760-200, WP003 00). | IBS RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-760-200, WP003 00). |
| IBS NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-760-200, WP003 00). | | | | |
| IBS RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-760-200, WP003 00). | | | | |
| <div>LEGEND</div> <div>1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> | | | | | |

Table 24. IFF System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div>NOTE</div> <div>The maintenance codes listed monitor system status:</div> <div><div>150</div><div><div>011338365</div><div>334339366</div><div>335340367</div><div>336364368</div></div></div> <div>For faults not listed in this table, do IFF functional test (A1-F18AC-600-200, WP034 00).</div> <div><div>IFF NOT RDY BIT status message on BIT control display.</div><div>Do table 1 (A1-F18AC-600-200, WP032 00).</div></div> <div><div>IFF RESTRT BIT status message on BIT control display.</div><div>Do table 1 (A1-F18AC-600-200, WP032 00).</div></div> <div><div>IFF MUX FAIL displayed on DDI</div><div>Do table 2 (A1-F18AC-600-200, WP055 00).</div></div> <div><div>IFF DEGD+OVHT displayed on DDI</div><div>Do table 6 (A1-F18AC-600-200, WP055 00).</div></div> | |
| <div>LEGEND</div> <div><div>1</div>F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> <div><div>2</div>F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292.</div> | |

Table 25. Radar Beacon System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div>NOTE</div> <div>The maintenance codes listed monitor system status:</div> <div><div>151</div><div>153</div></div> | |

Table 25. Radar Beacon System (Continued)


| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <p align="center">NOTE</p> <p align="center">For faults not listed in this table, do table 1 (A1-F18AC-630-200, WP011 00).</p> | |
| BCN NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP009 00). |
| BCN RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP009 00). |
| AUG NOT RDY BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP009 00). |
| AUG RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-630-200, WP009 00). |
| <p align="center">LEGEND</p> <p> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |

Table 26. TACAN System



| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <p align="center"> NOTE</p> <p align="center">Maintenance code 152 monitor system status. For faults not listed in this table, do TACAN system test (A1-F18AC-600-200, WP029 00).</p> | |
| TCN NOT RDY BIT status message on BIT control display. | Do TACAN System Built-In Test (A1-F18AC-600-200, WP027 00). |
| TCN RESTRT BIT status message on BIT control display. | Do TACAN System Built-In Test (A1-F18AC-600-200, WP027 00). |
| <p align="center">LEGEND</p> <p> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |

Table 27. Flight Control System

| FAULT DESCRIPTION | MAINTENANCE ACTION | |
|---|---|-----|
| <div><div>1</div><div>NOTE</div></div> | | |
| The maintenance codes listed monitor system status: | | |
| 014 | 218 | 254 |
| 015 | 219 | 255 |
| 185 | 220 | 256 |
| 186 | 221 | 257 |
| 187 | 222 | 258 |
| 188 | 223 | 259 |
| 189 | 224 | 260 |
| 190 | 225 | 261 |
| 191 | 226 | 262 |
| 192 | 227 | 263 |
| 193 | 228 | 264 |
| 194 | 229 | 265 |
| 195 | 230 | 266 |
| 199 | 231 | 275 |
| 200 | 232 | 276 |
| 201 | 233 | 277 |
| 202 | 234 | 278 |
| 203 | 235 | 279 |
| 204 | 236 | 280 |
| 205 | 237 | 281 |
| 206 | 238 | 282 |
| 207 | 239 | 285 |
| 208 | 240 | 286 |
| 209 | 241 | 287 |
| 210 | 242 | 288 |
| 211 | 245 | 289 |
| 212 | 246 | 290 |
| 213 | 249 | 291 |
| 214 | 250 | 292 |
| 215 | 251 | 293 |
| 216 | 252 | 294 |
| 217 | 253 | 295 |
| Aircraft controller grip assembly trim switch inoperative. | Perform MAINT BIT (A1-F18AC-570-200, WP005 00). | |
| Aircraft rolls with stick centered and no trim inputs to the flight controls. | <div><div>1.</div>Do Profile C in A1-F18AC-NFM-700.</div> <div><div>2.</div>Do uncommanded roll troubleshooting procedures (A1-F18AC-570-220, WP044 00, Table 5).</div> | |
| Autopilot options not available on Electronic Equipment Control. | Do Lamp and Switch Test (A1-F18AC-741-200, WP004 00). | |

Table 27. Flight Control System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| An autopilot mode does not engage when commanded or disengaged when not commanded. | Do the below: <ol style="list-style-type: none"> 1. When any maintenance code exist, do WP003 00. 2. If any cautions exist, do WP004 00. 3. If code or caution do not exist, do table 4 (A1-F18AC-570-200, WP028 35). |
| Nuisance pitch bump(s) while in any coupled mode (BALT HOLD, RALT HOLD, or coupled steering). The bump is approximately 0.5 second in duration and 0.1G in magnitude. No BLIN or MMP codes set. Can not be duplicated on the ground. | Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 (FCCA) (A1-F18AC-570-300, WP003 00). |
| FCS AIR DAT caution appeared during straight and level flight. | Do the below: <ol style="list-style-type: none"> 1. Do Air Data Sensor DT-600/ASW-44 Leak and Functional Test (A1-F18AC-570-200, WP005 06). 2. If the normal indication exists do FCS TG8 BIT Procedure (A1-F18AC-570-200, WP005 04). |
| FCS AIR DAT caution continuously set and reset throughout flight. | Do the below: <ol style="list-style-type: none"> 1. Do Air Data Sensor DT-600/ASW-44 Leak and Functional Test (A1-F18AC-570-200, WP005 06). 2. If the normal indication exists do FCS TG8 BIT Procedure (A1-F18AC-570-200, WP005 04). |
| FCS AIR DAT caution would not auto reset. | Do the below: <ol style="list-style-type: none"> 1. Do Air Data Sensor DT-600/ASW-44 Leak and Functional Test (A1-F18AC-570-200, WP005 06). 2. If the normal indication exists do FCS TG8 BIT Procedure (A1-F18AC-570-200, WP005 04). |

Table 27. Flight Control System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| <p>Flight control system passes IBIT but fails FCS TG 12. The same BLIN code(s) appear in all four channels. The BLIN codes are 4411, 4412, 4413, and/or 4517.</p> <p>FCSA NOT RDY BIT status message on BIT control display.</p> <p>FCSA OH BIT status message on BIT control display.</p> <p>FCSA RESTRT BIT status message on BIT control display.</p> <p>FCSB NOT RDY BIT status message on BIT control display.</p> <p>FCSB OH BIT status message on BIT control display.</p> <p>FCSB RESTRT BIT status message on BIT control display.</p> <p>“Flight Computer Hot” voice alert not heard in headset.</p> <p>“Flight Controls” voice alert not heard in headset.</p> <p>Flight control stick binds or jams.</p> <p>G-LIM 7.5 caution exist.</p> <p>G-LIM 7.5 caution set during fuel low level warning BIT and “Flight Controls” voice warning was not heard in headset.</p> | <p>Do the below:</p> <p>ON F/A-18A, isolate and replace failed cockpit control stick yoke bearing assembly (A1-F18AC-570-300, WP018 00).</p> <p>ON F/A-18B, isolate and replace failed rear cockpit control stick yoke bearing assembly (A1-F18AC-570-300, WP017 00).</p> <p>If BLIN code(s) remain, do table 3, Backup Mechanical Flight Control System (A1-F18AC-570-200, WP030 00).</p> <p>Do Preflight BIT Procedure (A1-F18AC-570-200, WP003 00).</p> <p>Do table 4 (A1-F18AC-570-220, WP028 01).</p> <p>Do Preflight BIT Procedure (A1-F18AC-570-200, WP003 00).</p> <p>Do Preflight BIT Procedure (A1-F18AC-570-200, WP003 00).</p> <p>Do table 4 (A1-F18AC-570-220, WP028 01).</p> <p>Do Preflight BIT Procedure (A1-F18AC-570-200, WP003 00).</p> <p>Do troubleshooting procedure (A1-F18AC-FIM-000, WP160 00).</p> <p>Do troubleshooting procedure (A1-F18AC-FIM-000, WP160 00).</p> <p>Do backup mechanical flight controls functional test (A1-F18AC-570-200, WP010 00).</p> <p>Do the below:</p> <ol style="list-style-type: none"> 1. If any maintenance codes exist, do WP003 00. 2. If maintenance codes, advisories, or cautions do not exist, do troubleshooting procedure (A1-F18AC-570-220, WP043 00). <p>See figure 23 (WP004 00).</p> |

Table 27. Flight Control System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Leading Edge Flaps locked up. | Do table 3 (A1-F18AC-570-200, WP028 22). |
| Outboard leading edge excessive flap free play. | Do the below <ol style="list-style-type: none"> 1. Do expandable bolt retorquing procedure (A1-F18AC-570-300, WP032 00 and WP033 00). 2. Inspect structural fittings (A1-F18AC-SRM-210, WP015 02). 3. Do Freeplay Inspection and Wear Tolerances (A1-F18AC-SRM-210, WP015 02). |
| Aileron attach fittings excessive free play or aircraft had an uncommanded roll and no BLIN codes were set. | Do the below: <ol style="list-style-type: none"> 1. If any maintenance code exists, do WP003 00. 2. Inspect structural fittings (A1-F18AC-SRM-210, WP010 02). 3. Do Freeplay Inspection and Wear Tolerances (A1-F18AC-SRM-210, WP010 02). |
| Inboard leading edge flap attaching fittings excessive free play. | Do the below: <ol style="list-style-type: none"> 1. When any maintenance code exists, do WP003 00. 2. Inspect structural fittings (A1-F18AC-SRM-210, WP016 04). |
| Rudder attaching fittings excessive free play. | Do the below: <ol style="list-style-type: none"> 1. When any maintenance code exists, do WP003 00. 2. Inspect structural fittings (A1-F18AC-SRM-240, WP038 00). 3. Do Freeplay Inspection and Wear Tolerances (A1-F18AC-SRM-210, WP038 00). |
| Stabilator attaching fitting excessive free play. | Do the below: <ol style="list-style-type: none"> 1. If any maintenance code exists, do WP003 00. 2. Inspect structural fittings (A1-F18AC-SRM-240, WP037 00). 3. Do Freeplay Inspection and Wear Tolerances (A1-F18AC-SRM-210, WP037 00). |
| Trailing edge flap attaching fittings excessive free play. | Do the below: <ol style="list-style-type: none"> 1. If any maintenance code exists, do WP003 00. 2. Inspect structural fittings (A1-F18AC-SRM-210, WP008 03). 3. Do Freeplay Inspection and Wear Tolerances (A1-F18AC-SRM-210, WP008 03). |

Table 27. Flight Control System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <p>Rear aircraft controller grip assembly trim switch inoperative.</p> | <p>Do the below:</p> <p>ON F/A-18B 161354 THRU 161360, do table 3 (A1-F18AC-FIM-000, WP128 00).</p> <p>ON F/A-18B 161704 AND UP, do table 4 (A1-F18AC-FIM-000, WP128 00).</p> |
| <p>SPIN MODE ENGAGED is not displayed at correct airspeed.</p> | <p>Do the below:</p> <ol style="list-style-type: none"> 1. Do Air Data Sensor DT-600/ASW-44 Leak and Functional Test (A1-F18AC-570-200, WP005 06). 2. If normal indication exist, replace Air Data Sensor DT-600/ASW-44 (A1-F18AC-570-300). |
| <p>SPIN MODE ENGAGED is not displayed when SPIN switch is set to RCVY.</p> | <p>Do the below:</p> <ol style="list-style-type: none"> 1. Do FCS MAIN BIT procedure (A1-F18AC-570-200, WP005 00). 2. If normal indication exist, do Air Data Sensor DT-600/ASW-44 leak and functional test (A1-F18AC-570-200, WP005 06). |
| <p>ON F/A-18B, SPIN mode display is displayed on rear left digital display indicator or right digital display indicator but not on both digital display indicators.</p> | <p>Correct operation.</p> |
| <p>Stall warning tone not heard.</p> | <p>Do troubleshooting procedure (A1-F18AC-570-220, WP043 00).</p> |
| <p>When moving control stick full forward, full aft, full right or full left; the applicable control surface does not move to the required position.</p> | <p>Do the below:</p> <ol style="list-style-type: none"> 1. First do rigging procedures (A1-F18AC-570-300, WP022 00). 2. Then do WP016 00 (A1-F18AC-570-300). |
| <p>Keep alive circuit test fails within 7 seconds.</p> | <p>Replace Roll-Pitch-Yaw Computer CP-1330/ASW-44 for failed channel (A1-F18AC-570-300, WP003 00).</p> |
| <p>Air/contamination in hydraulic system 1/2.</p> | <p>Do Air Bleed/Decontamination - Hydraulic System (A1-F18AC-LMM-000, WP010 00).</p> |
| <p>Hydraulic system fluid overheat.</p> | <p>Do table 9 (A1-F18AC-450-200, WP003 00).</p> |

Table 27. Flight Control System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Hydraulic system reservoir fluid transfer. | Do table 8 (A1-F18AC-450-200, WP003 00). |
| Uncontrolled Lateral Stick Movements. | Do backup Mechanical Flight Controls Uncommanded Lateral Stick Movement Troubleshooting Procedure (A1-F18AC-570-210, WP017 04) |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 | |

Table 28. Forward Looking Infrared System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <div>1</div> NOTE | |
| The maintenance codes listed monitor system status: | |
| 007 304 309 314 | |
| 300 305 310 | |
| 301 306 311 | |
| 302 307 312 | |
| 303 308 313 | |
| FLIR pushbutton option not displayed on MENU display. | Do Initiated Built-In Test (A1-F18AC-744-200, WP004 00). |
| FLIR NOT RDY BIT status message on BIT control display. | Do table 3 (A1-F18AC-744-200, WP005 00). |
| FLIR OH BIT status message on BIT control display. | Do table 4 (A1-F18AC-744-200, WP005 00). |
| FLIR RESTRT BIT status message on BIT control display. | Do table 1 (A1-F18AC-744-200, WP006 00). |
| FLIR Pod dessicant does not indicate blue. | Replace dessicant cartridge (A1-F18AC-744-300, WP016 00). |
| LEGEND | |
| <div>1</div> F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 29. Laser Detector Tracker System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <div>1 → NOTE</div> <p>The maintenance codes listed monitor system status:</p> <div> 012 325 326 </div> <div>LST NOT RDY BIT status message on BIT control display.</div> <div>LST OH BIT status message on BIT control display.</div> <div>LST RESTRT BIT status message on BIT control display.</div> <div>LDT Pod dessicant does not indicate blue.</div> <div>LDT pushbutton switch option is not displayed on DDI (MENU display) after LST/CAM switch is set to ON (SNSR panel).</div> | |
| <div>LEGEND</div> | |
| <div>1 → F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> | |

Table 30. Strike Camera System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <div>1 → NOTE</div> <p>The maintenance codes listed monitor system status:</p> <div> 326 350 351 </div> <div>CAM NOT RDY BIT status message on BIT control display.</div> <div>CAM OH BIT status message on BIT control display.</div> <div>CAM RESTRT BIT status message on BIT control display.</div> | |
| | Do Initiated Built-In Test (A1-F18AC-743-200, WP005 00). |
| | Do Initiated Built-In Test (A1-F18AC-743-200, WP005 00). |
| | Do Initiated Built-In Test (A1-F18AC-743-200, WP005 00). |

Table 30. Strike Camera System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| CAM pushbutton switch option is not displayed on DDI (MENU display) after LST/CAM switch is set to ON (SNSR panel). | Do Initiated Built-In Test (A1-F18AC-743-200, WP005 00). |
| Film under/over exposed. | <ol style="list-style-type: none"> 1. If lighting conditions over the target (from pilot debrief) were excessively dark (under exposed)/bright (over exposed), refly camera. 2. If lighting conditions were normal, replace Strike Recording Still Picture Camera KB-35A (A1-F18AC-743-300, WP009 00). |

LEGEND

1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.

Table 31. Data Link System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <p>1 NOTE</p> <p>The maintenance codes listed monitor system status:</p> <p>016 180 179</p> <p>NOTE</p> <p>For faults not listed in this table, do the data link functional test (A1-F18AC-630-200, WP014 00).</p> | |
| D/L NOT RDY BIT status message on BIT control display. | Do Data Link System Test (A1-F18AC-630-200, WP014 00). |
| D/L RESTRT BIT status message on BIT control display. | Do Data Link System Test (A1-F18AC-630-200, WP014 00). |
| LEGEND | |
| <p>1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |

Table 32. Communication System

| FAULT DESCRIPTION | MAINTENANCE ACTION | |
|---|---|-----|
| <div>4</div> NOTE | | |
| The maintenance codes listed monitor system status: | | |
| 018 | 175 | 177 |
| 019 | 176 | 178 |
| 234 | 235 | 236 |
| 237 | 238 | 239 |
| 240 | 241 | |
| NOTE | | |
| For faults not listed in this table, do the applicable functional test (A1-F18AC-600-200) listed below: receiver-transmitter no. 1 - WP005 00 receiver-transmitter no. 2 - WP010 00 relay mode - WP014 00 | | |
| COM DEGD will result when initiated built-in test is run on communication system when a RT-1250/ARC and a RT-1250A/ARC are installed with only one turned on. Both COMM's must be turned on when running initiated built-in test. | | |
| COMM 1 BIT status message on COMM BIT display: | | |
| NOT RDY | Do VHF/UHF Communication System Built-In Test (A1-F18AC-600-200, WP003 00). | |
| RESTR | Do VHF/UHF Communication System Built-In Test (A1-F18AC-600-200, WP003 00). | |
| COMM 1 transmission and reception not satisfactory and COMM 1 DEGD exists. | Do table 1 (A1-F18AC-600-200, WP004 00) 2 (A1-F18AC-600-200, WP004 01). 3 | |
| COMM 2 BIT status message on COMM BIT display: | | |
| NOT RDY | Do VHF/UHF Communication System Built-In Test (A1-F18AC-600-200, WP003 00). | |
| RESTR | Do VHF/UHF Communication System Built-In Test (A1-F18AC-600-200, WP003 00). | |
| COMM 2 transmission and reception not satisfactory and COMM 2 DEGD exists. | Do table 1 (A1-F18AC-600-200, WP004 00) 2 (A1-F18AC-600-200, WP004 01). 3 | |

Table 32. Communication System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <p>1 Tones in headset of up to three seconds during CSC power-up.</p> | <p>Normal operation when any of the below conditions were met:</p> <ol style="list-style-type: none"> 1. Right generator control unit cycled with amplifier-control intercommunication on during ground operation. 2. Powered up communication set control before amplifier-control intercommunication during ground operation. 3. Cycled right generator control unit during flight. |
| <p style="text-align: center;">LEGEND</p> <p>1 CONTROL-CONVERTER C-10382/A P/N 7959750-007</p> <p>2 F/A-18A 162394 THRU 163175 BEFORE F/A-18 AFC 292.</p> <p>3 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292.</p> <p>4 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |

Table 33. Weapons System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| <div>1</div> NOTE | |
| The maintenance codes listed monitor system status: | |
| 375 382 394 | |
| 376 383 396 | |
| 377 384 400 | |
| 378 385 401 | |
| 379 391 402 | |
| 380 392 403 | |
| 381 393 404 | |
| AIM-7 missile fails to fire. | 161353 THRU 161924 - Do table 1 (A1-F18AC-740-200, WP028 00). 161925 AND UP - Station 2, do table 1 (A1-F18AC-740-200, WP027 03). Station 4, do table 1 (A1-F18AC-740-200, WP027 05). Station 6, do table 1 (A1-F18AC-740-200, WP027 06). Station 8, do table 1 (A1-F18AC-740-200, WP027 04). |

Table 33. Weapons System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| AIM-7 missiles (all) failed to TUNE. | Do AIM-7 Illumination Antenna Test (A1-F18AC-740-200, WP015 00). |
| AD1-9 missile AC power fails. | 161353 THRU 161924 - Do table 2 (A1-F18AC-740-200, WP037 00). |
| | 161925 AND UP - Do table 1 (A1-F18AC-740-200, WP037 04). |
| AIM-9 missile audio signal fails. | 161353 THRU 161924 - Do table 1 (A1-F18AC-740-200, WP037 00). |
| | 161925 AND UP - Do table 1 (A1-F18AC-740-200, WP037 04). |
| AIM-9 missile fails to fire. | 161353 THRU 161924 - Do table 4 (A1-F18AC-740-200, WP037 00). |
| | 161925 AND UP - Do table 1 (A1-F18AC-740-200, WP037 04). |
| Arming unit fails electrically, BRU-32/(). | Do table 3 (A1-F18AC-740-200, WP031 00). |
| Arming unit fails electrically BRU-33/(). | Do table 4 (A1-F18AC-740-200, WP033 02). |
| HUNG displayed on DDI after installing WOW Wedge, emergency jettison. | Do table 4 (A1-F18AC-740-200, WP019 00). |
| Auxiliary release fails, BRU-32/(). | Do table 1 (A1-F18AC-740-200, WP021 01). |
| Electrical fuzing voltage fails, BRU-32/(). | Do table 1 (A1-F18AC-740-200, WP023 00). |
| Electrical fuzing voltage fails, BRU-33/(). | Do table 1 (A1-F18AC-740-200, WP025 00). |
| Emergency jettison release fails. | Do table 2 (A1-F18AC-740-200, WP019 00). |
| Ground safety handle fails to lock, BRU-32/(), emergency jettison. | Do table 3 (A1-F18AC-740-200, WP019 00). |
| Ground ssfety handle fails to unlock, BRU-32/(), emergency jettison. | Do table 1 (A1-F18AC-740-200, WP019 00). |
| Ground safety handle inoperative, BRU-32/(). | Do table 1 (A1-F18AC-740-200, WP021 00). |

Table 33. Weapons System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| Ground safety handle inoperative, BRU-33/(). | Do table 1 (A1-F18AC-740-200, WP033 02). |
| HARM status not displayed on DDI. | Do table 2 (A1-F18AC-740-200, WP031 02). |
| Incorrect HARM status or targets on DDI. | Do table 4 (A1-F18AC-740-200, WP031 02). |
| HARM missile AC power fails. | Do table 1 (A1-F18AC-740-200, WP031 02). |
| HARM missile fails to release, select jettison. | Do table 8 (A1-F18AC-740-200, WP031 02). |
| HOMING light fails to come on, MER. | Do table 1 (A1-F18AC-740-200, WP033 00). |
| HARPOON missile AC power fails. | Do table 3 (A1-F18AC-740-200, WP029 02). |
| HARPOON missile DC power fails. | Do table 1 (A1-F18AC-740-200, WP029 02). |
| HARPOON missile fails to release. | Do table 5 (A1-F18AC-740-200, WP029 02). |
| H + ULK displayed on DDI, store released normally from BRU-32/(). | Do table 2 (A1-F18AC-740-200, WP027 21). |
| H + ULK displayed on DDI, store failed to release from BRU-33/(). | Do table 3 (A1-F18AC-740-200, WP027 21). |
| H + ULK displayed on DDI, store failed to release from MER. | Do table 4 (A1-F18AC-740-200, WP027 21). |
| Rockets fail to fire, BRU-33/(). | Do table 1 (A1-F18AC-740-200, WP035 00). |
| Safety lock drive inoperative, LAU-115/(). | Do table 6 (A1-F18AC-740-200, WP029 00). |
| Safety release knob fails to LOCK, LAU-116/(). | Do table 2 (A1-F18AC-740-200, WP027 00). |
| Safety release knob fails to UNLOCK, LAU-116/(). | Do table 1 (A1-F18AC-740-200, WP027 00). |
| Select jettison fails, BRU-32/(). | Do table 2 (A1-F18AC-740-200, WP021 00). |
| Select jettison fails, BRU-33/(). | Do table 3 (A1-F18AC-740-200, WP021 00). |

Table 33. Weapons System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| Select jettison fails, LAU-116/(). | Do table 3 (A1-F18AC-740-200, WP027 00). |
| Store failed to release, BRU-32/(). | Do table 1 (A1-F18AC-740-200, WP031 00). |
| Store failed to release, BRU-33/(). | Do table 2 (A1-F18AC-740-200, WP033 02). |
| Store failed to release, MER. | Do table 2 (A1-F18AC-740-200, WP033 00). |
| WALLEYE missile AC power fails. | Do table 1 (A1-F18AC-740-200, WP035 02). |
| WALLEYE missile fails to release. | Do table 2 (A1-F18AC-740-200, WP035 03). |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 34. Nose Wheel Steering System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| NOTE | |
| To fault isolate nose wheel steering system failures, other than those listed in this table, do nose wheel steering system operational test (A1-F18AC-570-200, WP035 00). Stop at step where fault is shown to be isolated by observing normal indication that is directly related to fault decription. | |
| ON F/A-18A, Nose Wheel Steering will not engage. | Do table 1 (A1-F18AC-FIM-000, WP138 00). |
| ON F/A-18B, Nose Wheel Steering will not engage from rear cockpit. | 161354 THRU 161360 - Replace rear aircraft controller grip assembly (A1-F18AC-570-300, WP005 00). 161704 AND UP - Replace rear aircraft controller grip assembly (A1-F18AC-570-300, WP062 00). |
| ON F/A-18B, Nose Wheel Steering will not engage from cockpit. | 161354 THRU 161360 - Replace aircraft controller grip assembly (A1-F18AC-570-300, WP005 00). 161704 AND UP - Replace aircraft controller grip assembly (A1-F18AC-570-300, WP062 00). |

Table 34. Nose Wheel Steering System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| ON F/A-18B, Nose Wheel Steering will not engage from either Cockpit. | 161354 THRU 161360 - Do table 2 (A1-F18AC-FIM-000, WP138 00). 161704 AND UP - Do table 3 (A1-F18AC-FIM-000, WP138 00). |
| NWS HI flashing on HUD. | Do Hydraulic System Functional Test (A1-F18AC-450-200, WP003 00). |
| NWS engages but nosewheel does not move. | Do Flight Control System Nosewheel Steering BIT procedure (A1-F18AC-570-200, WP005 00). |
| Nose Wheel Steering operates without being commanded. | 161353 THRU 161528 - Replace Nose Wheel Steering Selector Valve (A1-F18AC-570-300, WP064 00). 161702 AND UP - Do table 6 (A1-F18AC-570-220, WP028 01). |
| Nose Wheel shimmy during landing rollout and taxi. | 1. Make sure NLG tires are serviced correctly (A1-F18AC-LMM-000, WP026 00). 2. Inspect NLG upper and lower torque arms for free play. If any free play exists, replace NLG upper and lower torque arms (A1-F18AC-130-300, WP021 00). 3. If shimmy still exists, replace NLG wheel and tire assemblies (A1-F18AC-LMM-000, WP029 00). 4. If shimmy still exists, replace nose wheel steering power unit (A1-F18AC-570-300, WP063 00). |

Table 35. Countermeasures Warning and Control System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <div>1</div> NOTE | |
| The maintenance codes listed monitor system status: | |
| 020 106 109 014 107 110 015 108 111 | |

Table 35. Countermeasures Warning and Control System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--|
| On Azimuth Indicator IP-1276/ALR-67(V), selected priority in status circle cycles continuously from the selected priority to N (normal priority). | Reset circuit breaker on rear of Radar Receiver R-2055/ALR-67(V) and do Countermeasures Warning and Control System (A1-F18AC-760-200, WP031 00). |
| LEGEND | |
| 1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY. | |

Table 36. Video Recording System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| NOTE | |
| The maintenance code 114 monitors system status. | |
| RCDR ON light does not come on - MAN mode. | Do Video Recording System Initiated Built-In Test (A1-F18AC-770-200, WP005 00). |
| RCDR ON light does not come on - AUTO mode. | Do Video Recording System Functional Test (A1-F18AC-770-200, WP007 00). |
| Audio | |
| • No Audio - F/A-18A | Do table 1 (A1-F18AC-770-200, WP008 00). |
| • No Audio - F/A-18B | Do table 2 (A1-F18AC-770-200, WP008 00). |
| • Poor quality audio | Do table 3 (A1-F18AC-770-200, WP003 00). |
| • Secure speech recorded | Do table 7 (A1-F18AC-770-200, WP008 03). |
| HUD Video | |
| • No video - F/A-18A | Do table 1 (A1-F18AC-770-200, WP008 01). |
| • No video - F/A-18B | Do table 2 (A1-F18AC-770-200, WP008 01). |
| • Poor quality - F/A-18A | Do table 3 (A1-F18AC-770-200, WP008 01). |
| • Poor quality - F/A-18B | Do table 4 (A1-F18AC-770-200, WP008 01). |

Table 36. Video Recording System (Continued)

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <u>LDDI/RDDI Video</u> <ul style="list-style-type: none"> No video Poor quality - F/A-18A Poor quality - F/A-18B | <p>Do Video Recording System Functional Test (A1-F18AC-770-200, WP007 00).</p> <p>Do table 5 (A1-F18AC-770-200, WP008 03).</p> <p>Do table 6 (A1-F18AC-770-200, WP008 03).</p> |
| <u>Video Selection</u> <ul style="list-style-type: none"> LDDI/RDDI selected LDDI/RDDI to HUD when A/G weapon release or A/A gun/A/A missile trigger switch is pressed HUD to LDDI/RDDI when A/G weapon release or A/A missile trigger switch is released | <p>Do Video Recording System Functional Test (A1-F18AC-770-200, WP007 00).</p> <p>Do Video Recording System Functional Test (A1-F18AC-770-200, WP007 00).</p> <p>Do Video Recording System Functional Test (A1-F18AC-770-200, WP007 00).</p> |
| No event markers displayed | Do table 5 (A1-F18AC-770-200, WP008 01). |
| Event markers displayed at all times | Do table 6 (A1-F18AC-770-200, WP008 01). |

Table 37. Arresting Gear System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div>1</div> NOTE <p>Maintenance code 916 monitors system status.</p> <p>To fault isolate arresting gear system failures, other than those listed in this table, do arresting gear system operational test (A1-F18AC-130-200, WP010 00). Stop at step where fault is shown to be isolated by observing normal indication that is directly related to fault description.</p> | |
| <div>1</div> LEGEND <p>F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</p> | |

Table 38. Catapult System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <div>1 NOTE</div> <p>Maintenance code 899 monitors system status.</p> <p>To fault isolate catapult system failures, other than those listed in this table, do catapult system operational test (A1-F18AC-130-200, WP011 00). Stop at the step where fault is shown to be isolated by observing normal indication that is directly related to fault description.</p> | |
| <div>LEGEND</div> <div>1 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> | |

Table 39. Wheel Brake and Anti-Skid System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| <div>1 NOTE</div> <p>The maintenance codes listed monitor system status:</p> <div>905 907 906 908</div> <div>NOTE</div> <p>To fault isolate wheel brake and Anti-Skid System failures, other than those listed in this table, do wheel brake and anti skid operational test (A1-F18AC-130-200, WP008 00). Stop at step where fault is shown to be isolated by observing normal indication that is directly related to fault description.</p> | |
| ANTI-SKID caution on digital display indicator. | Do maintenance codes 905, 906, 907 or 908, table 1, WP003 00). |
| Anti spin failure. | Do Anti Spin Operational Test (A1-F18AC-130-200, WP008 00). |
| BRK ACCUM caution on digital display indicator. | Do Emer Brake Accumulator Servicing procedure (A1-F18AC-LMM-000, WP033 00). If emer brake accumulator does not require servicing, see Anti-Skid System Schematic (A1-F18AC-130-500, WP008 01). |

Table 39. Wheel Brake and Anti-Skid System (Continued)


| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--------------------|
| <div style="text-align: center;">  </div> <p>To prevent brake slippage at high taxi speeds, extra care must be taken during brake system maintenance and/or troubleshooting to prevent the introduction of contaminants to the carbon pad(s). Brakes exhibit reduced effectiveness when the carbon pad is contaminated with oil and/or other agents. Effectiveness is also reduced when the carbon pad is exposed to moisture or water immersion.</p> <div>Loss of normal brakes below 50 knots.</div> <div style="border-left: 1px solid black; padding-left: 10px;"> Do table 2 (A1-F18AC-130-200, WP008 09). </div> <div style="text-align: center;"> NOTE </div> <p>During land-based operations, the amount of brake usage on landing create sufficient heat build-up in the brakes and often causes the contaminants, water and/or moisture to evaporate as the brakes cool down and proper brake operation is restored on the next landing.</p> <div>Weak or spongy brakes.</div> <div style="border-left: 1px solid black; padding-left: 10px;"> Do the below: 1. Check condition of brake wear pins. Make sure brake pins are visible (A1-F18AC-MRC-100). 2. If brake pins are visible, do table 1, Brake and Anti-Skid System Operational Test (A1-F18AC-130-200, WP008 00). </div> <div>Grabby brakes.</div> <div style="border-left: 1px solid black; padding-left: 10px;"> Do the below: 1. Do table 1, Brake and Anti-Skid System Operational Test (A1-F18AC-130-200, WP008 00). 2. If brakes pass operational test, do Wheel Brake Bleeding procedure (A1-F18AC-130-320, WP064 00). </div> | |
| <div style="text-align: center;"> LEGEND </div> <div style="border: 1px solid black; padding: 5px;"> <div style="display: inline-block; border: 1px solid black; padding: 2px 5px; text-align: center;">1</div> <div style="display: inline-block; vertical-align: middle;">F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292, MMP CODES ARE READ FROM COCKPIT DDI ONLY.</div> </div> | |

Table 40. Backup Attitude System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| Attitude Reference Indicator ARU-48/A does not operate on battery. | Do table 1 (A1-F18AC-730-200, WP017 00). |
| Attitude Reference Indicator ARU-48/A does not operate on aircraft power. | Do the below: ON F/A-18A, do table 6 (A1-F18AC-730-200, WP017 00). ON F/A-18B, do table 2 (A1-F18AC-730-200, WP017 00). |
| Horizon line on HUD does not operate correctly with ATTD switch in STBY. | Do Attitude Reference Indicator Operational Test (A1-F18AC-730-200, WP014 00). |

Table 41. ADF System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|---|
| <p>NOTE</p> <p>For faults not listed in this table, do the ADF system functional test (A1-F18AC-600-200, WP017 00).</p> | |
| ADF bearing hold inoperable. | Do ADF System Test (A1-F18AC-600-200, WP017 00). |
| ADF bearing marker on HSI display does not indicate bearing. | Do ADF System Test (A1-F18AC-600-200, WP017 00). |
| No audio tone in headset with ADF switch set to 1. | Do ADF System Test (A1-F18AC-600-200, WP017 00). |
| No audio tone in headset with ADF switch bet to 2. | Do ADF System Test (A1-F18AC-600-200, WP017 00). |

Table 42. Countermeasures Dispensing System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <p>NOTE</p> <p>For faults not listed in this table, do countermeasures dispensing system functional test (A1-F18AC-760-200, WP006 00).</p> | |

Table 43. Countermeasures Set

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <p align="center">NOTE</p> <p>For faults not listed in this table, do AN/USM-406A(V) functional test (A1-F18AC-760-200, WP025 00).</p> | |

Table 44. Secure Speech System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|--------------------|
| <p align="center">NOTE</p> <p>For faults not listed in this table, do the below applicable functional test (A1-F18AC-600-200):</p> <p>VHF/UHF receiver-transmitter no. 1 - WP047 00</p> <p>VHF/UHF receiver-transmitter no. 2 - WP049 00</p> <p>Relay mode - WP051 00.</p> | |

Table 45. Speed Brake System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|--|--|
| <p align="center">NOTE</p> <p>To fault isolate speed brake system failures other than those listed in this table, do speed brake functional test (A1-F18AC-570-200, WP032 00). Also if any BLIN codes exist, do maintenance action for BLIN codes (A1-F18AC-570-200, WP007 00).</p> | |
| Speed brake extends. | Do table 3, (A1-F18AC-570-200, WP042 00). |
| Speed brake does not extend. | Do table 2, (A1-F18AC-570-200, WP032 01). |
| SPD BRK advisory light will not come on. | Do table 3, (A1-F18AC-570-200, WP032 01). |
| SPD BRK advisory light will not go out. | Do table 4, (A1-F18AC-570-200, WP032 01). |
| Rear Cockpit SPD BRK advisory light will not come on. | Do table 5, (A1-F18AC-570-200, WP032 01). |
| Rear Cockpit SPD BRK advisory light does not go out. | Do table 6, (A1-F18AC-570-200, WP032 01). |

Table 46. Wing Fold System

| FAULT DESCRIPTION | MAINTENANCE ACTION |
|---|---|
| <p style="text-align: center;">NOTE</p> <p>To fault isolate wing fold system failures other than those listed in this table, do wing fold functional test (A1-F18AC-570-200, WP033 00). Also if any BLIN codes exist, do maintenance action for BLIN codes (A1-F18AC-570-200, WP007 00).</p> | |
| Left wing will not fold. | Do table 1 (A1-F18AC-570-200, WP034 01). |
| Left wing will not spread. | Do table 2 (A1-F18AC-570-200, WP034 01). |
| Right wing will not fold. | Do table 3 (A1-F18AC-570-200, WP034 01). |
| Right wing will not spread. | Do table 4 (A1-F18AC-570-200, WP034 01). |
| Left aileron is not X'ed out on FCS display when left wing is folded. | <p>Do the below:</p> <ol style="list-style-type: none"> 1. Read BLIN codes (A1-F18AC-570-200, WP006 00). 2. When BLIN code 71 is displayed, do table 4 (A1-F18AC-570-220, WP028 12). 3. If BLIN code 71 is not displayed, do table 5 (A1-F18AC-570-220, WP028 35). |
| Right aileron is not X'ed out on FCS display when right wing is folded. | <p>Do the below:</p> <ol style="list-style-type: none"> 1. Read BLIN codes (A1-F18AC-570-200, WP006 00). 2. When BLIN code 71 is displayed, do table 4 (A1-F18AC-570-220, WP028 12). 3. If BLIN code 71 is not displayed, do table 5 (A1-F18AC-570-220, WP028 35). |

Table 47. Embedded GPS/INS System - F/A-18A and F/A-18B 161925 thru 163175 after F/A-18 AFC 225 and F/A-18 AFC 231; or F/A-18A 162394 thru 163175 after F/A-18 AFC 253 or F/A-18 AFC 292 and after F/A-18 AFC 231 part 2 or part 3

| FAULT DESCRIPTION | MAINTENANCE ACTION | | | | | | | | | | | | | | | | |
|---|---|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|-----|-----|---|---|---|--|
| <div>NOTE</div> <div>1</div> <p>The maintenance codes listed monitor system status.</p> <table><tr><td>025</td><td>061</td><td>062</td><td>063</td><td>064</td><td></td></tr><tr><td>026</td><td>031</td><td>065</td><td>066</td><td>067</td><td>114</td></tr></table> <div>NOTE</div> <p>To fault isolate Global Positioning failures other than those listed in this table, do A1-F18AC-710-200, WP015 00, table 1.</p> <table><tr><td>NOT RDY displayed on digital display indicator.</td><td>Do table 5 (A1-F18AC-710-200, WP015 00).</td></tr><tr><td>INS Mode (CV, GND, NAV, IFA, GYRO, or GB) Display is not displayed on digital display indicator.</td><td>Do table 3 (A1-F18AC-710-200, WP015 00)</td></tr></table> | | 025 | 061 | 062 | 063 | 064 | | 026 | 031 | 065 | 066 | 067 | 114 | NOT RDY displayed on digital display indicator. | Do table 5 (A1-F18AC-710-200, WP015 00). | INS Mode (CV, GND, NAV, IFA, GYRO, or GB) Display is not displayed on digital display indicator. | Do table 3 (A1-F18AC-710-200, WP015 00) |
| 025 | 061 | 062 | 063 | 064 | | | | | | | | | | | | | |
| 026 | 031 | 065 | 066 | 067 | 114 | | | | | | | | | | | | |
| NOT RDY displayed on digital display indicator. | Do table 5 (A1-F18AC-710-200, WP015 00). | | | | | | | | | | | | | | | | |
| INS Mode (CV, GND, NAV, IFA, GYRO, or GB) Display is not displayed on digital display indicator. | Do table 3 (A1-F18AC-710-200, WP015 00) | | | | | | | | | | | | | | | | |
| <div>LEGEND</div> <div>1</div> <p>F/A-18A 162394 thru 163175 after F/A-18 AFC 253 or F/A-18 AFC 292; MMP Codes are read from cockpit DDI only.</p> | | | | | | | | | | | | | | | | | |

Table 48. Mission Data Loader - F/A-18A and F/A-18B 161925 thru 163175 after F/A-18 AFC 225 and F/A-18 AFC 231; or F/A-18A 162394 thru 163175 after F/A-18 AFC 253 or F/A-18 AFC 292 and after F/A-18 AFC 231 part 2 or part 3

| FAULT DESCRIPTION | | MAINTENANCE ACTION | | | | | |
|---|----------------------------------|--------------------|--|---------|----------------------------------|-------|----------------------------------|
| <div>NOTE</div> <div>The maintenance codes listed monitor system status.</div> <div>159160</div> <div>NOTE</div> <div>To fault isolate Mission Data Loader failures other than those listed in this table, do table 1, A1-F18AC-580-200, WP005 00.</div> <div>MDL BIT status message on STATUS MONITOR BIT display:</div> <table><tr><td>NOT RDY</td><td>Do table 1 (A1-F18AC-580-200)</td></tr><tr><td>RESTR</td><td>Do table 1 (A1-F18AC-580-200)</td></tr></table> | | | | NOT RDY | Do table 1 (A1-F18AC-580-200) | RESTR | Do table 1 (A1-F18AC-580-200) |
| NOT RDY | Do table 1 (A1-F18AC-580-200) | | | | | | |
| RESTR | Do table 1 (A1-F18AC-580-200) | | | | | | |
| <div>LEGEND</div> <div>1 F/A-18A 162394 thru 163175 after F/A-18 AFC 253 or F/A-18 AFC 292; MMP Codes are read from cockpit DDI only.</div> | | | | | | | |

ORGANIZATIONAL MAINTENANCE
FAULT REPORTING MANUAL
CIRCUIT BREAKER TRIPS SYMPTOMS

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|-----------------|
| Circuit Breaker Panel Assembly Locator, Figure 1 | 3 |
| Introduction | 2 |
| LH Essential Circuit Breakers Control Panel Assembly (52A-H093), Figure 2 | 5 |
| No. 2 Circuit Breaker Panel Assembly (52A-D024) - 161353 THRU 161359, Figure 4 | 7 |
| No. 2 Circuit Breaker Panel Assembly (52A-D024) - 161360 AND UP, Figure 5 | 10 |
| No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161353 THRU 161359, Figure 6 | 14 |
| No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161360 AND UP, Figure 7 | 17 |
| No. 5 Circuit Breaker Panel Assembly (52A-D092), Figure 8 | 20 |
| No. 7 Circuit Breaker/Relay Panel Assembly (52A-C057), Figure 9 | 23 |
| No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161353 THRU 161528, Figure 10 | 27 |
| No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161702 AND UP, Figure 11 | 31 |
| RH Essential Circuit Breakers Control Panel Assembly (52A-J094), Figure 3 | 6 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------------|-------------|--|-------------------------|----------------|
| F/A-18 AFC-8 | 1 May 86 | Power Lever Control, Actuator, Changes to (ECP 0041) | 15 Mar 83 | - |
| F/A-18 AFC-53 | 1 Nov 89 | Elimination of Tanks 1 and 4 Sneak Circuits, Tank 4 Moto Flow Shutoff Valve, and Raised Inverted Baffle (ECP 0055) | 1 Jun 86 | - |
| F/A-18 AFC-48 | 1 May 84 | Bus tie System, MOD of, (ECP-MDA-F/A-18-00121) | 1 Sep 86 | - |
| F/A-18 AFC-49 | 1 Jul 86 | GFE Sealed Lead Acid Battery, (SLAB) Addition of (ECP-MDA-F/A-18-00074) | 1 Sep 86 | - |
| F18 AFC 27 | - | Leading Edge Flap/Control Stick Changes (ECP-MDA-F/A-18-00044C2) | 15 Apr 87 | - |

Record of Applicable Technical Directives (Continued)

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|---------------------------------|------|--|-----------------|---------|
| F18 AFC 86 | - | Removal of Longitudinal Control Stick Stop at 25 LB, Aft Position, and Installation of Matched Increased Torque and U-Joints to Leading Edge Flap Mechanism (ECP-MDA-F/A-18-000142R2) | 15 Apr 87 | - |
| F18 AFC 39 | - | No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP-MDA-F/A-18-00072C1) | 15 Jun 88 | - |
| F18 AFC 253 | - | US Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R10) | 01 Feb 01 | - |
| F18 AFC 292 | - | US Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 01 Feb 01 | - |
| F/A-18 AFC 225 | - | Five (5) Avionics Multiplex Bus Upgrade, Incorporation of (ECP MDA-F/A-18 0529) | 1 Jun 02 | - |
| F/A-18 AFC 231 | - | Embedded Global Positioning System (GPS)/Inertial Navigation System (INS) (EGI), Incorporation of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |
| F/A-18 AFC 231 Part 2 or Part 3 | - | Embedded Global Positioning System (GPS)/Inertial Navigation System (INS) (EGI), Incorporation of (ECP MDA-F/A-18 0521) | 1 Jun 02 | - |

1. INTRODUCTION.

2. This section contains circuit breaker locators and references the system schematics manual to be used as an aid in troubleshooting each circuit breaker trips malfunction.

3. To fault isolate a circuit breaker trips malfunction:

a. Find the circuit breaker panel assembly on component locator or in the work package alphabetical index.

b. Go to the figure listed and find the tripped circuit breaker.

c. Go to the referenced system schematics manual work package.

NOTE

If the work package has more than one schematic, the circuit breaker is listed in the alphabetical index. If the work package only has one schematic, only the schematic title is listed.

d. Fault isolate.







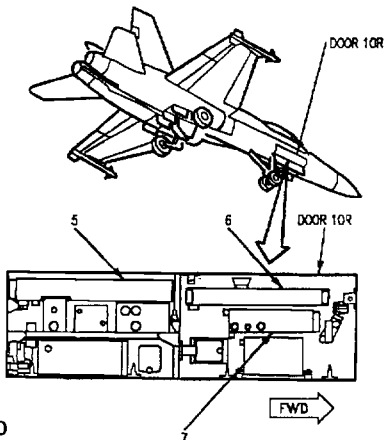
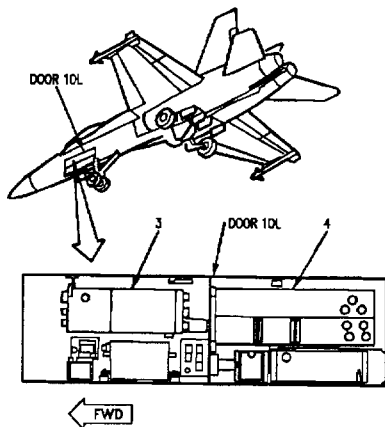
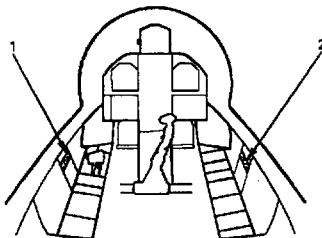
| INDEX NO. | REF DES | NOMENCLATURE | FIG NO. | | |
|-----------|----------|--|--|---|---|
| 1 | 52A-H093 | LH ESSENTIAL CIRCUIT BREAKERS CONTROL PANEL ASSEMBLY | 2 | | |
| 2 | 52A-J094 | RH ESSENTIAL CIRCUIT BREAKERS CONTROL PANEL ASSEMBLY | 3 | | |
| 3 | 52A-C159 | NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | 10  <table><tr><td>3</td></tr></table> 11  <table><tr><td>4</td></tr></table> | 3 | 4 |
| 3 | | | | | |
| 4 | | | | | |
| 4 | 52A-C057 | NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | 9 | | |
| 5 | 52A-D026 | NO. 4 CIRCUIT BREAKER PANEL ASSEMBLY | 6  <table><tr><td>1</td></tr></table> 7  <table><tr><td>1</td></tr></table> | 1 | 1 |
| 1 | | | | | |
| 1 | | | | | |
| 6 | 52A-D024 | NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY | 4  <table><tr><td>1</td></tr></table> 5  <table><tr><td>2</td></tr></table> | 1 | 2 |
| 1 | | | | | |
| 2 | | | | | |
| 7 | 52A-D092 | NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY | 8 | | |

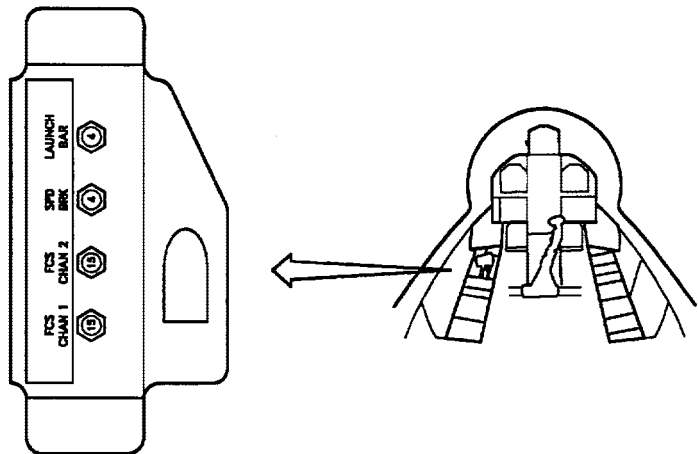
Figure 1. Circuit Breaker Panel Assembly (Sheet 1)



LEGEND

- 1 161353 THRU 161359.
- 2 161360 AND UP.
- 3 161353 THRU 161528.
- 4 161702 AND UP.

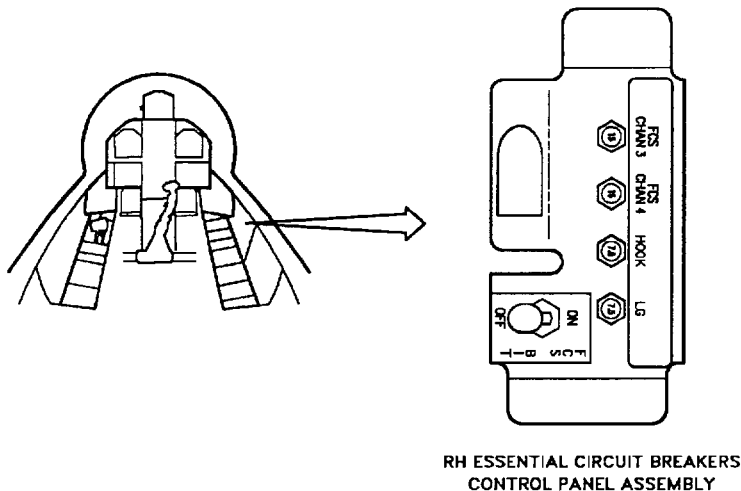
Figure 1. Circuit Breaker Panel Assembly Locator (Sheet 2)



LH ESSENTIAL CIRCUIT BREAKERS
CONTROL PANEL ASSEMBLY

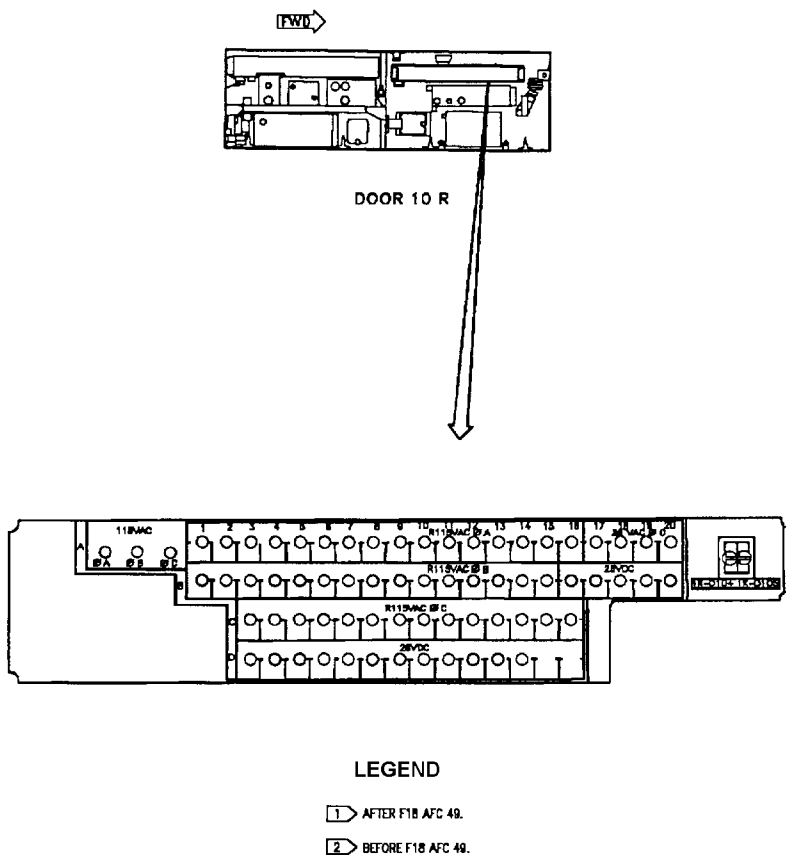
| 52A-J093 LH ESSENTIAL CIRCUIT BREAKERS CONTROL PANEL ASSEMBLY | | | |
|---|---|--|--|
| REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| 84CBH008 84CBH009 18CBH001 12CBH003 | FCS CHAN 1 FCS CHAN 2 SPD BRK LAUNCH BAR | ESS 24/28VDC ESS 24/28VDC L 28VDC L 28VDC | 570-500, WP005 00 570-500, WP005 00 570-500, WP028 00 130-500, WP011 00 |

Figure 2. LH Essential Circuit Breakers Control Panel Assembly (52A-H093)



| 52A-J094 RH ESSENTIAL CIRCUIT BREAKERS CONTROL PANEL ASSEMBLY | | | |
|---|--|--|--|
| REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| 84CBJ010 84CBJ011 190CBJ001 12CBJ001 | FCS CHAN 3 FCS CHAN 4 HOOK LG | R 28VDC R 28VDC R 28VDC R 28VDC | 570-500, WP005 00 570-500, WP005 00 130-500, WP010 00 130-500, WP004 00 |

Figure 3. RH Essential Circuit Breakers Control Panel Assembly (52A-J094)



| 52A-D024 | | No. 2 Circuit Breaker Panel Assembly | | |
|------------|----------|--------------------------------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A ϕ A | 22CBD052 | AVIONICS COOLING FAN | R 115VAC ϕ A | 410-500, WP009 00 |
| A ϕ B | 22CBD053 | AVIONICS COOLING FAN | R 115VAC ϕ B | 410-500, WP009 00 |
| A ϕ C | 22CBD054 | AVIONICS COOLING FAN | R 115VAC ϕ C | 410-500, WP009 00 |
| A1 | 22CBD070 | GND CLG FANS CONT | R 28VDC | 410-500, WP009 00 |
| A2 | 1CBD132 | BATT CHG TRU | R 115VAC ϕ A | 420-500, WP004 00 |
| A3 | 1CBD030 | XFMR RECT | R 115VAC ϕ A | 420-500, WP004 00 |
| A4 | 28CBD004 | R AOA P HTR | R 115VAC ϕ A | 560-500, WP006 00 |
| A5 | 8CBD046 | INS LTS CONT | R 115VAC ϕ A | 440-500, WP004 00 |
| A6 | 3CBD041 | R BLEED AIR DOOR | R 115VAC ϕ A | 270-500, WP009 00 |
| A7 | 17CBD005 | R WING FOLD | R 115VAC ϕ A | 570-500, WP027 00 |
| A8 | 22CBD059 | R CABIN CLG FAN | R 115VAC ϕ A | 410-500, WP009 00 |
| A9 | 33CBD003 | STBY ATT IND | R 115VAC ϕ A | 730-500, WP014 00 |
| A10 | 79CBD003 | HUD | R 115VAC ϕ A | 745-500, WP004 00 |
| A11 | 80CBD007 | MFD | R 115VAC ϕ A | 745-500, WP004 00 |
| A12 | 83CBD009 | MISSION CMPTR NO. 2 | R 115VAC ϕ A | 741-500, WP009 00 |
| A13 | 9CBD004 | ICE DETR | R 115VAC ϕ A | 270-500, WP009 00 |
| A14 | 8CBD079 | STROBE LT | R 115VAC ϕ A | 740-500, WP020 00 |
| A17 | 10CBD001 | HYD SYS NO. 1 | R 26VAC ϕ C | 450-500, WP003 00 |
| A18 | 10CBD002 | HYD SYS NO. 2 | R 26VAC ϕ C | 450-500, WP003 00 |
| A19 | 68CBD005 | INS | R 26VAC ϕ C | 730-500, WP004 00 |
| A20 | 71CBD002 | ADF | R 26VAC ϕ C | 600-500, WP011 00 |
| B2 | 1CBD133 | BATT CHG TRU | R 115VAC ϕ B | 420-500, WP004 00 |
| B3 | 1CBD031 | XFMR RECT | R 115VAC ϕ B | 420-500, WP004 00 |
| B4 | 28CBD002 | R PITOT P HTR | R 115VAC ϕ B | 510-500, WP003 00 |
| B5 | 8CBD047 | INS LTS CONT | R 115VAC ϕ B | 440-500, WP004 00 |
| B6 | 3CBD042 | R BLEED AIR DOOR | R 115VAC ϕ B | 270-500, WP009 00 |
| B7 | 17CBD003 | R WING FOLD | R 115VAC ϕ B | 570-500, WP027 00 |
| B8 | 22CBD060 | R CABIN CLG FAN | R 115VAC ϕ B | 410-500, WP009 00 |
| B9 | 33CBD004 | STBY ATT IND | R 115VAC ϕ B | 730-500, WP014 00 |
| B10 | 79CBD004 | HUD | R 115VAC ϕ B | 745-500, WP004 00 |
| B11 | 80CBD008 | MFD | R 115VAC ϕ B | 745-500, WP004 00 |
| B12 | 83CBD010 | MISSION CMPTR NO. 2 | R 115VAC ϕ B | 741-500, WP009 00 |
| B13 | 5CBD044 | FUEL QUAN IND | R 115VAC ϕ B | 460-500, WP012 00 |

Figure 4. No. 2 Circuit Breaker Panel Assembly (52A-D024) - 161353 thru 161359 (Sheet 2)

| 52A-D024 No. 2 Circuit Breaker Panel Assembly | | | | |
|--|----------|---------------------|---|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| B14 | 1CBD037 | U BAT HTR | R 115VAC ϕ B | 420-500, WP004 00 |
| B16 | 1CBD074 | UTIL BAT/CHGR | R 28VDC 2 | 420-500, WP004 00 |
| B17 | 9CBD002 | ENGINE ICE DETR | R 28VDC | 270-500, WP009 00 |
| B18 | 9CBD006 | L/R ENG ANTI-IVE V | R 28VDC | 270-500, WP005 00 |
| B19 | 12CBD002 | LG CONT | R 28VDC | 130-500, WP004 00 |
| B20 | 23CBD001 | WSHLD AI/RAIN RMV | R 28VDC | 410-500, WP013 00 |
| C3 | 1CBD032 | XFMR RECT | R 115VAC ϕ C | 420-500, WP004 00 |
| C4 1 | 1CBD134 | BATT CHG TRU | R 115VAC ϕ C | 420-500, WP004 00 |
| C5 | 8CBD048 | INS LTS CONT | R 115VAC ϕ C | 440-500, WP004 00 |
| C6 | 3CBD043 | R BLEED AIR DOOR | R 115VAC ϕ C | 270-500, WP009 00 |
| C7 | 17CBD007 | R WING FOLD | R 115VAC ϕ C | 570-500, WP027 00 |
| C8 | 22CBD061 | R CABIN CLG FAN | R 115VAC ϕ C | 410-500, WP009 00 |
| C9 | 33CBD005 | STBY ATT IND | R 115VAC ϕ C | 730-500, WP014 00 |
| C10 | 70CBD005 | HUD | R 115VAC ϕ C | 745-500, WP004 00 |
| C11 | 80CBD009 | MFD | R 115VAC ϕ C | 745-500, WP004 00 |
| C12 | 83CBD011 | MISSION CMPTR NO. 2 | R 115VAC ϕ C | 741-500, WP009 00 |
| C13 | 22CBD034 | ECS CONT | R 115VAC ϕ C | 410-500, WP007 00 |
| C14 | 67CBD003 | ELEC ALT | R 115VAC ϕ C | 600-500, WP023 00 |
| C15 | 1CBD045 | 26 VAC AUTO XFMR | R 115VAC ϕ C | 420-500, WP003 00 |
| D3 | 22CBD071 | UND COOL SENSOR | R 28VDC | 410-500, WP009 00 |
| D4 | 28CBD007 | PROBE HTR CONT | R 28VDC | 510-500, WP003 00 |
| D5 | 8CBD005 | INT LTS | R 28VDC | 440-500, WP006 00 |
| D6 | 3CBD029 | R BL DR/ENG CONT | R 28VDC | 270-500, WP009 00 |
| D7 | 17CBD001 | WINGFOLD CONT -A | R 28VDC | 570-500, WP027 00 |
| D8 | 22CBD057 | CAB CLG FAN CONT | R 28VDC | 410-500, WP009 00 |
| D9 | 22CBD036 | R B L AIR CONT V | R 28VDC | 410-500, WP005 00 |
| D10 | 79CBD002 | HUD | R 28VDC | 745-500, WP004 00 |
| D11 | 65CBD025 | AN/ALE 39 CONT | R 28VDC | 760-500, WP006 00 |
| D12 | 65CBD024 | AN/ALE 30 PWR | R 28VDC | 760-500, WP006 00 |
| D13 | 22CBD020 | ECS CONT | R 28VDC | 410-500, WP007 00 |
| D14 | 84CBD030 | APC R-ENG | R 28VDC | 570-500, WP005 00 |
| D15 | 71CBD003 | ADF | R 28VDC | 600-500, WP011 00 |
| D16 | 76CBD025 | INTERCOM | R 28VDC | 600-500, WP013 00 |

Figure 4. No. 2 Circuit Breaker Panel Assembly (52A-D024) - 161353 thru 161359 (Sheet 3)

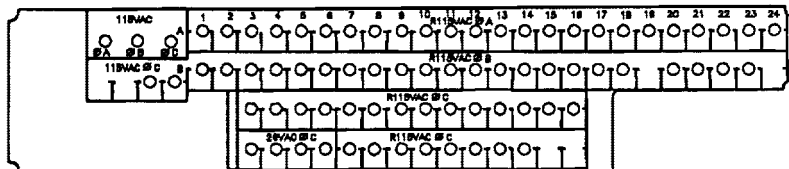
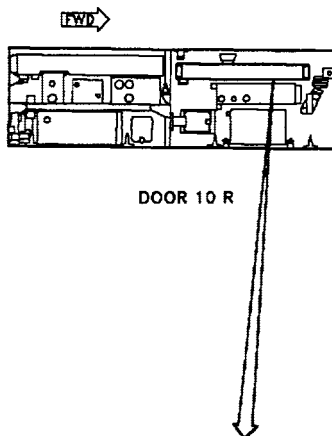


Figure 5. No. 2 Circuit Breaker Panel Assembly (52A-D024) - 161360 and up (Sheet 1)

| 52A-D024 | | NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|------------|----------|--|-------------------|--|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A ϕ A | 22CBD052 | AVIONICS GND COOL- ING FAN ϕ A | R 115VAC ϕ A | 410-500, WP009 00 |
| A ϕ B | 22CBD053 | AVIONICS GND COOL- ING FAN ϕ B | R 115VAC ϕ B | 410-500, WP009 00 |
| A ϕ C | 22CBD054 | AVIONICS GND COOL- ING FAN ϕ C | R 115VAC ϕ C | 410-500, WP009 00 |
| A1 | 61CBD080 | ARM STA 8 | R 115VAC ϕ A | 740-500, WP030 00 |
| A2 | 61CBD156 | AMAC | R 115VAC ϕ A | 740-500, WP004 00 |
| A3 | 1CBD030 | T/R | R 115VAC ϕ A | 420-500, WP004 00 |
| A4 | 28CBD004 | R AOA P HTR | R 115VAC ϕ A | 560-500, WP006 00 |
| A5 | 8CBD046 | INS LTS CONT | R 115VAC ϕ A | 440-500, WP004 00 |
| A6 | 3CBD041 | R BLEED AIR DOOR | R 115VAC ϕ A | 270-500, WP009 00 |
| A7 | 61CBD068 | ARM STA 5 | R 115VAC ϕ A | 740-500, WP027 00 |
| A8 | 61CBD072 | ARM STA 6 | R 115VAC ϕ A | 740-500, WP028 00 |
| A9 | 61CBD076 | ARM STA 7 | R 115VAC ϕ A | 740-500, WP029 00 |
| A10 | 61CBD087 | HARM | R 115VAC ϕ A | 740-520, WP059 00 |
| A11 | 82CBD002 | CSC | R 115VAC ϕ A | 741-500, WP009 00 |
| A12 | 66CBD002 | BLANKER | R 115VAC ϕ A | 760-500, WP004 00 |
| A13 | 17CBD005 | R WINGFOLD | R 115VAC ϕ A | 570-500, WP027 00 |
| A14 | 22CBD059 | R CAB CLG FAN | R 115VAC ϕ A | 410-500, WP009 00 |
| A15 | 33CBD003 | STBY ATT IND | R 115VAC ϕ A | 730-500, WP014 00 |
| A16 | 70CBD003 | HUD | R 115VAC ϕ A | 745-500, WP004 00 |
| A17 | 80CBD007 | MFD | R 115VAC ϕ A | 745-500, WP004 00 |
| A18 | 83CBD009 | MISSION CMPTR NO. 2 | R 115VAC ϕ A | 741-500, WP009 00 |
| A19 | 9CBD004 | ICE DETECTOR | R 115VAC ϕ A | 270-500, WP009 00 |
| A20 | 8CBD079 | STROBE LT | R 115VAC ϕ A | 740-500, WP020 00 |
| A21 | 61CBD003 | SMS | R 115VAC ϕ A | 740-500, WP011 00 |
| A22 | 61CBD084 | ARM STA 9 | R 115VAC ϕ A | 740-500, WP031 00 |
| A23 | 70CBD036 | VIDEO TAPE RCDR | R 115VAC ϕ A | 770-500, WP004 00 770-500, WP005 00 |
| A24 | 1CBD132 | BATT CHG TRU | R 115VAC ϕ A | 420-500, WP004 00 |
| B- | 61CBD082 | ARM STA 8 | R 115VAC ϕ C | 740-500, WP030 00 |
| B- | 61CBD158 | AMAC | R 115VAC ϕ C | 740-500, WP004 00 |
| B1 | 61CBD081 | ARM STA 8 | R 115VAC ϕ B | 740-500, WP030 00 |
| B2 | 61CBD157 | AMAC | R 115VAC ϕ B | 740-500, WP004 00 |
| B3 | 1CBD031 | T/R | R 115VAC ϕ B | 420-500, WP004 00 |

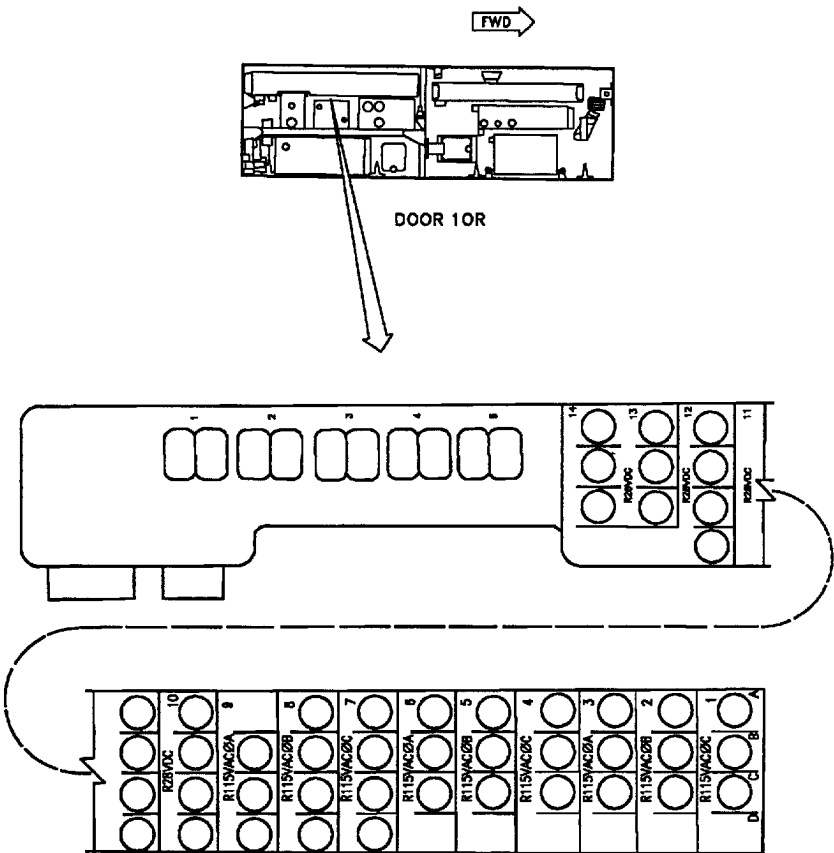
Figure 5. No. 2 Circuit Breaker Panel Assembly (52A-D024) -161360 and up (Sheet 2)

| 52A-D024 NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY | | | | |
|---|----------|---------------------|-------------------|--|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| B4 | 28CBD002 | R PITOT P HTR | R 115VAC ϕ B | 510-500, WP003 00 |
| B5 | 8CBD047 | INS LTS CONT | R 115VAC ϕ B | 440-500, WP004 00 |
| B6 | 3CBD042 | R BLEED AIR DOOR | R 115VAC ϕ B | 270-500, WP009 00 |
| B7 | 61CBD069 | ARM STA 5 | R 115VAC ϕ B | 740-500, WP027 00 |
| B8 | 61CBD073 | ARM STA 6 | R 115VAC ϕ B | 740-500, WP028 00 |
| B9 | 61CBD077 | ARM STA 7 | R 115VAC ϕ B | 740-500, WP029 00 |
| B10 | 61CBD088 | HARM | R 115VAC ϕ B | 740-500, WP059 00 |
| B11 | 82CBD003 | CSC | R 115VAC ϕ B | 741-500, WP009 00 |
| B12 | 70CBD006 | ADC | R 115VAC ϕ B | 560-500, WP004 00 |
| B13 | 17CBD006 | R WINGFOLD | R 115VAC ϕ B | 570-500, WP027 00 |
| B14 | 22CBD060 | R CAB CLG FAN | R 115VAC ϕ B | 410-500, WP009 00 |
| B15 | 33CBD004 | STBY ATT IND | R 115VAC ϕ B | 730-500, WP014 00 |
| B16 | 79CBD004 | HUD | R 115VAC ϕ B | 745-500, WP004 00 |
| B17 | 80CBD008 | MFD | R 115VAC ϕ B | 745-500, WP004 00 |
| B18 | 83CBD010 | MISSION CMPTR NO. 2 | R 115VAC ϕ B | 741-500, WP009 00 |
| B19 | 5CBD044 | FUEL QUAN IND | R 115VAC ϕ B | 460-500, WP012 00 |
| B20 | 1CBD037 | UTIL BATT HTR | R 115VAC ϕ B | 420-500, WP004 00 |
| B21 | 61CBD004 | SMS | R 115VAC ϕ B | 740-500, WP011 00 |
| B22 | 79CBD037 | VIDEO TAPE RCDR | R 115VAC ϕ B | 770-500, WP004 00 770-500, WP005 00 |
| B23 | 1CBD133 | BATT CHG TRU | R 115VAC ϕ B | 420-500, WP004 00 |
| C3 | 1CBD032 | T/R | R 115VAC ϕ C | 420-500, WP004 00 |
| C4 | 1CBD045 | 26VAC AUTO XFMR | R 115VAC ϕ C | 420-500, WP003 00 |
| C5 | 8CBD048 | INS LTS CONT | R 115VAC ϕ C | 440-500, WP004 00 |
| C6 | 3CBD043 | R BLEED AIR DOOR | R 115VAC ϕ C | 270-500, WP009 00 |
| C7 | 61CBD070 | ARM STA 5 | R 115VAC ϕ C | 740-500, WP027 00 |
| C8 | 61CBD074 | ARM STA 6 | R 115VAC ϕ C | 740-500, WP028 00 |
| C9 | 61CBD078 | ARM STA 7 | R 115VAC ϕ C | 740-500, WP029 00 |
| C10 | 61CBD089 | HARM | R 115VAC ϕ C | 740-500, WP059 00 |
| C11 | 82CBD004 | CSC | R 115VAC ϕ C | 741-500, WP009 00 |
| C12 | 60CBD004 | TACAN | R 115VAC ϕ C | 600-500, WP016 00 |
| C13 | 17CBD007 | R WINGFOLD | R 115VAC ϕ C | 570-500, WP027 00 |
| C14 | 22CBD061 | R CAB CLG FAN | R 115VAC ϕ C | 410-500, WP009 00 |
| C15 | 33CBD005 | STBY ATT IND | R 115VAC ϕ C | 730-500, WP014 00 |
| C16 | 79CBD005 | HUD | R 115VAC ϕ C | 745-500, WP004 00 |

Figure 5. No. 2 Circuit Breaker Panel Assembly (52A-D024) - 161360 and up (Sheet 3)

| 52A-D024 | | NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|----------|---|--------------------------------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| D3 | 10CBD001 | HYD SYS NO. 1 | R 115VAC ϕ C | 450-500, WP003 00 |
| D4 | 10CBD002 | HYD SYS NO. 2 | R 115VAC ϕ C | 450-500, WP003 00 |
| D5 | 68CBD005 | INS | R 115VAC ϕ C | 730-500, WP004 00 |
| D6 | 71CBD002 | ADF | R 115VAC ϕ C | 600-500, WP011 00 |
| D7 | 80CBD009 | MFD | R 115VAC ϕ C | 745-500, WP004 00 |
| D8 | 83CBD011 | MISSION CMPTR NO. 2 | R 115VAC ϕ C | 741-500, WP009 00 |
| D9 | 22CBD034 | ECS CONT | R 115VAC ϕ C | 410-500, WP007 00 |
| D10 | 67CBD003 | ELEC ALT | R 115VAC ϕ C | 600-500, WP023 00 |
| D11 | 61CBD005 | SMS | R 115VAC ϕ C | 740-500, WP011 00 |
| D12 | 34CBD002 | APPROACH LTS | R 115VAC ϕ C | 560-500, WP005 00 |
| D13 | 79CBD038 | VIDEO TAPE RCDR | R 115VAC ϕ C | 770-500, WP004 00 |
| D14 | 1CBD134 | BATT CHG TRU | R 115VAC ϕ C | 420-500, WP004 00 |
| LEGEND | | | | |
| 1 | 161702 AND UP. | | | |
| 2 | F/A-18A. | | | |
| 3 | F/A-18B. | | | |
| 4 | 161702 AND UP; ALSO 161360 THRU 161528 AFTER F18 AFC49. | | | |

Figure 5. No. 2 Circuit Breaker Panel Assembly (52A-D024) -161360 and up (Sheet 4)



00600601

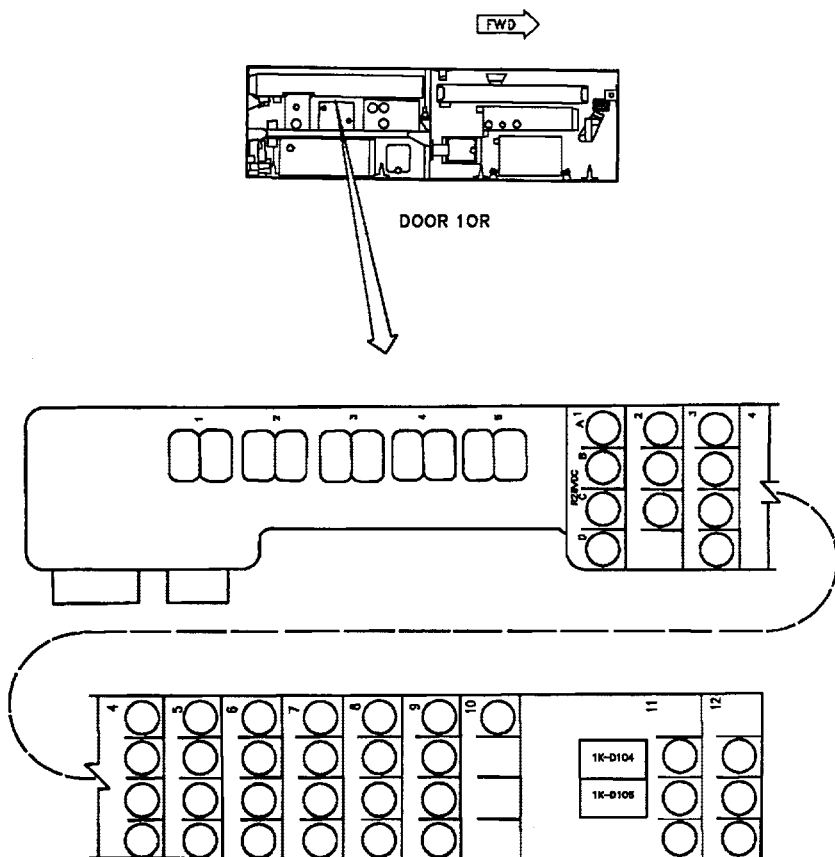
Figure 6. No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161353 thru 161359 (Sheet 1)

| 52A-D026 | | NO. 4 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|----------|----------|--------------------------------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A1 | 61CBD082 | ARM STA 8 | R 115VAC ϕ C | 740-500, WP030 00 |
| A2 | 61CBD081 | ARM STA 8 | R 115VAC ϕ B | 740-500, WP030 00 |
| A3 | 61CBD080 | ARM STA 8 | R 115VAC ϕ A | 740-500, WP030 00 |
| A4 | 61CBD070 | ARM STA 5 | R 115VAC ϕ C | 740-500, WP027 00 |
| A5 | 61CBD069 | ARM STA 5 | R 115VAC ϕ B | 740-500, WP027 00 |
| A6 | 61CBD068 | ARM STA 5 | R 115VAC ϕ A | 740-500, WP027 00 |
| A7 | 34CBD002 | APRCH LTS | R 115VAC ϕ C | 560-500, WP005 00 |
| A9 | 61CBD084 | ARM STA 9 | R 115VAC ϕ A | 740-500, WP031 00 |
| A10 | 61CBD079 | ARM STA 8 | R 28VDC | 740-520, WP030 00 |
| A11 | 61CBD067 | ARM STA 5 | R 28VDC | 740-500, WP027 00 |
| A12 | 61CBD006 | SMS | R 28VDC | 740-500, WP011 00 |
| A13 | 76CBD014 | UHF R/T NO. 2 | R 28VDC | 600-500, WP006 00 |
| A14 | 34CBD001 | APRCH LTS | R 28VDC | 560-500, WP005 00 |
| B1 | 61CBD158 | AMAC | R 115VAC ϕ C | 740-500, WP004 00 |
| B2 | 61CBD157 | AMAC | R 115VAC ϕ B | 740-500, WP004 00 |
| B3 | 61CBD156 | AMAC | R 115VAC ϕ A | 740-500, WP004 00 |
| B4 | 61CBD074 | ARM STA 6 | R 115VAC ϕ C | 740-500, WP028 00 |
| B5 | 61CBD073 | ARM STA 6 | R 115VAC ϕ B | 740-500, WP028 00 |
| B6 | 61CBD072 | ARM STA 6 | R 115VAC ϕ A | 740-500, WP028 00 |
| B7 | 61CBD005 | SMS | R 115VAC ϕ C | 740-500, WP011 00 |
| B8 | 61CBD004 | SMS | R 115VAC ϕ B | 740-500, WP011 00 |
| B9 | 61CBD003 | SMS | R 115VAC ϕ A | 740-500, WP011 00 |
| B10 | 61CBD159 | AMAC | R 28VDC | 740-500, WP004 00 |
| B11 | 61CBD071 | ARM STA 6 | R 28VDC | 740-500, WP028 00 |
| B12 | 82CBD005 | CSC | R 28VDC | 741-500, WP009 00 |
| B13 | 76CBD030 | ANT SEL | R 28VDC | 600-500, WP008 00 |
| B14 | 61CBD083 | ARM STA 9 | R 28VDC | 740-500, WP031 00 |
| C1 | 61CBD089 | HARM | R 115VAC ϕ C | 740-500, WP059 00 |
| C2 | 61CBD088 | HARM | R 115VAC ϕ B | 740-500, WP059 00 |
| C3 | 61CBD087 | HARM | R 115VAC ϕ A | 740-500, WP059 00 |
| C4 | 61CBD078 | ARM STA 7 | R 115VAC ϕ C | 740-500, WP029 00 |
| C5 | 61CBD077 | ARM STA 7 | R 115VAC ϕ B | 740-500, WP029 00 |
| C6 | 61CBD076 | ARM STA 7 | R 115VAC ϕ A | 740-500, WP029 00 |
| C7 | 82CBD004 | CSC | R 115VAC ϕ C | 741-500, WP009 00 |

Figure 6. No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161353 thru 161359 (Sheet 2)

| 52A-D026 | | NO. 4 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|---------------------|----------|--------------------------------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| C8 | 82CBD003 | CSC | R 115VAC ϕ B | 741-500, WP009 00 |
| C9 | 82CBD002 | CSC | R 115VAC ϕ A | 741-500, WP009 00 |
| C10 | 61CBD090 | HARM | R 28VDC | 740-500, WP059 00 |
| C11 | 61CBD075 | ARM STA 7 | R 28VDC | 740-500, WP029 00 |
| C12 | 61CBD149 | STA 8 AERO 5 | R 28VDC | 740-500, WP030 00 |
| C13 | 61CBD146 | STA 7 AERO 5 | R 28VDC | 740-500, WP029 00 |
| C14 | 72CBD007 | BEACON R/T AUG | R 28VDC | 630-500, WP006 00 |
| D7 | 69CBD004 | TACAN | R 115VAC ϕ C | 600-500, WP016 00 |
| D8 | 70CBD006 | ADC | R 115VAC ϕ B | 560-500, WP004 00 |
| D9 | 66CBD002 | BLANKER | R 115VAC ϕ A | 760-500, WP004 00 |
| D10 | 3CBD062 | THROTTLE BOOST | R 28VDC | 270-500, WP008 00 |
| D11 | 22CBD037 | CABIN RAM AIR | R 28VDC | 410-500, WP008 00 |
| D12 | 61CBD121 | LST/SCAM POD | R 28VDC | 743-500, WP005 00 |
| LEGEND | | | | |
| 1 BEFORE F18 AFC 8. | | | | |

Figure 6. No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161353 thru 161359 (Sheet 3)



00600701

Figure 7. No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161360 and up (Sheet 1)



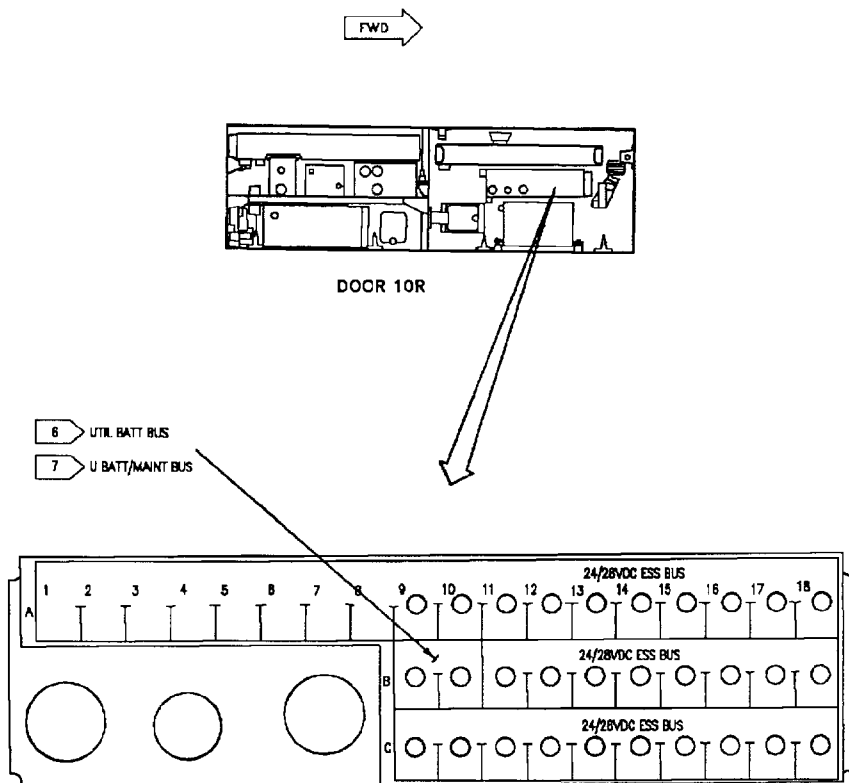
| 52A-D026 | | NO. 4 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|--|----------|--------------------------------------|---------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A1 | 34CBD001 | APPROACH LTS | R 28VDC | 560-500, WP005 00 |
| A2 | 76CBD014 | UHF R/T NO. 2 | R 28VDC | 660-500, WP006 00 |
| A3 | 61CBD006 | SMS | R 28VDC | 740-500, WP011 00 |
| A4 | 61CBD067 | ARM STA 5 | R 28VDC | 740-500, WP027 00 |
| A5 | 61CBD079 | ARM STA 8 | R 28VDC | 740-500, WP030 00 |
| A6 | 3CBD029 | R BLD AIR DOOR/ENG CONT | R 28VDC | 270-500, WP009 00 |
| A7 | 22CBD070 | GND CLG FANS CONT | R 28VDC | 410-500, WP009 00 |
| A8 | 9CBD002 | ENG ICE DETECTOR | R 28VDC | 270-500, WP009 00 |
| A9 | 65CBD025 | AN ALE 39-CONT | R 28VDC | 760-500, WP006 00 |
| A10 | 79CBD002 | HUD | R 28VDC | 745-520, WP004 00 |
| B1 | 61CBD083 | ARM STA 9 | R 28VDC | 740-500, WP031 00 |
| B2 | 76CBD030 | ANT SELECT | R 28VDC | 600-500, WP008 00 |
| B3 | 82CBD005 | CSC | R 28VDC | 741-500, WP009 00 |
| B4 | 61CBD071 | ARM STA 6 | R 28VDC | 740-500, WP028 00 |
| B5 | 61CBD159 | AMAC | R 28VDC | 740-500, WP004 00 |
| B6 | 22CBD036 | R BLEED AIR CONT VALVES | R 28VDC | 410-500, WP005 00 |
| B7 | 22CBD057 | CAB CLG FAN CONT | R 28VDC | 410-500, WP009 00 |
| B8 | 9CBD006 | L/R ENG ANTI-ICE V | R 28VDC | 270-500, WP005 00 |
| B9 | 65CBD024 | AN ALE 39 PWR | R 28VDC | 760-500, WP006 00 |
| B10 | 71CBD003 | ADF | R 28VDC | 600-500, WP011 00 |
| C1 | 72CBD007 | BCN R/T AGMT | R 28VDC | 630-500, WP006 00 |
| C2 | 76CBD025 | INTERCOM | R 28VDC | 600-500, WP013 00 |
| C3  | 61CBD149 | STA 8 AERO 5 | R 28VDC | 740-500, WP030 00 |
| C3  | 61CBD149 | STA 8 28VDC | R 28VDC | 740-500, WP030 00 |
| C4 | 61CBD075 | ARM STA 7 | R 28VDC | 740-500, WP029 00 |
| C5 | 61CBD090 | HARM | R 28VDC | 740-500, WP059 00 |
| C6 | 22CBD020 | ECS CONT | R 28VDC | 410-500, WP007 00 |
| C7 | 22CBD071 | UND COOL SENSOR | R 28VDC | 410-500, WP009 00 |
| C8 | 23CBD001 | WSHLD ANTI-ICE/RAIN REM | R 28VDC | 410-500, WP013 00 |
| C9 | 84CBD030 | APC | R 28VDC | 570-500, WP029 00 |
| C10 | 8CBD005 | INT LTS | R 28VDC | 440-500, WP006 00 |
| D1 | 12CBD002 | LDG CONT | R 28VDC | 180-500, WP004 00 |

Figure 7. No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161360 and up (Sheet 2)

| 52A-D026 | | NO. 4 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|----------|---------------------------------------|--------------------------------------|---------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| D2 | 1CBD074 | UTIL BATT/CHGR | R 28VDC | 420-500, WP004 00 |
| D3 | 61CBD221 | LST/SCAM POD | R 28VDC | 743-500, WP005 00 |
| D4 | 61CBD146 | STA 7 AERO 5 | R 28VDC | 740-500, WP029 00 |
| D4 | 61CBD146 | STA 7 28VDC | R 28VDC | 740-500, WP029 00 |
| D5 | 22CBD173 | CABIN EXIT AIR CONT | R 28VDC | 410-500, WP009 00 |
| D6 | 22CBD037 | CABIN RAM AIR VALVE | R 28VDC | 410-500, WP008 00 |
| D7 | 17CBD001 | WINGFOLD CONT-A | R 28VDC | 570 500, WP027 00 |
| D8 | 28CBD007 | PROBE HTR CONT | R 28VDC | 510-500, WP003 00 |
| D9 | 79CBD039 | VIDEO TAPE RCDR | R 28VDC | 770-500, WP005 00 |
| | | | | 770-500, WP004 00 |
| LEGEND | | | | |
| 1 | 161702 AND UP. | | | |
| 2 | 161353 THRU 161528 BEFORE F18 AFC 49. | | | |
| 3 | 162394 AND UP. | | | |
| 4 | 161360 THRU 161987. | | | |
| 5 | F/A-18A. | | | |
| 6 | F/A-18B. | | | |
| 7 | 163092 AND UP. | | | |

Figure 7. No. 4 Circuit Breaker Panel Assembly (52A-D026) - 161360 and up (Sheet 3)



00600801

Figure 8. No. 5 Circuit Breaker Panel Assembly (52A-D092) (Sheet 1)

| 52A-D092 | | NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY | | |
|----------|------------|--------------------------------------|--|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A9 | 5CBD063 | FUEL DUMP | ESS 24/28VDC | 460-500, WP009 00 |
| A10 | 5CBD064 | F/FUEL S/O VALVE | ESS 24/28VDC | 460-500, WP008 00 |
| A11 | 5CBD065 | CROSSFEED FUEL VLV | ESS 24/28VDC | 460-500, WP008 00 |
| A12 | 5CBD066 | L/FUEL S/O VALVE | ESS 24/28VDC | 460-500, WP008 00 |
| A13 | 61CBD135 | ARM STA 8 | ESS 24/28VDC | 740-500, WP030 00 |
| A14 | 61CBD002 | SMS | ESS 24/28VDC | 740-500, WP011 00 |
| A15 | 8 78CBD009 | CIT | ESS 24/28VDC | 600-500, WP026 00 |
| A16 | 1 8CBD003 | ANN LTS | ESS 24/28VDC | 440-500, WP006 00 |
| A16 | 2 8CBD003 | INT LTS | ESS 24/28VDC | 440-500, WP006 00 |
| A17 | 4CBD001 | FIRE DET LOOP A | ESS 24/28VDC | 240-500, WP010 00 |
| B9 | 84CBD098 | FCC B CH 4 | UTIL BATT 24VDC 6 U BATT/MAINT 24/28VDC 7 | 570-500, WP005 00 |
| B10 | 84CBD099 | FCC B CH 4 | U BATT/ 24VDC 6 U BATT/MAINT 28VDC 7 | 570-500, WP005 00 |
| B11 | 61CBD136 | ARM STA 6 | ESS 24/28VDC | 740-500, WP028 00 |
| B12 | 61CBD134 | ARM STA 7 | ESS 24/28VDC | 740-500, WP029 00 |
| B13 | 3CBD077 | L ENG IND | ESS 24/28VDC | 270-500, WP007 00 |
| B14 | 4 12CBD028 | LDG GR CONT UNIT | ESS 24/28VDC | 130-500, WP004 00 |
| B14 | 5 12CBD028 | NG RLY CONT | ESS 24/28VDC | 130-500, WP004 00 |
| B15 | 22CBD094 | FCS RM AIR DR ACTR | ESS 24/28VDC | 410-500, WP009 00 |
| B16 | 8CBD004 | UTIL LT | ESS 24/28VDC | 440-500, WP004 00 |
| B17 | 4CBD100 | F EXT | ESS 24/28VDC | 240-500, WP010 00 |
| B18 | 3CBD052 | ENG MON | ESS 24/28VDC | 270-500, WP007 00 |
| C9 | 12CBD070 | LMG RLY CONT | ESS 24/28VDC | 130-500, WP004 00 |
| C10 | 12CBD071 | RMG RLY CONT | ESS 24/28VDC | 130-500, WP004 00 |
| C11 | 61CBD130 | ARM STA 2 | ESS 24/28VDC | 740-500, WP024 00 |
| C12 | 61CBD131 | ARM STA 3 | ESS 24/28VDC | 740-500, WP025 00 |
| C13 | 3CBD076 | R ENG IND | ESS 24/28VDC | 270-500, WP007 00 |
| C14 | 33CBD010 | STBY ADI | ESS 24/28VDC | 730-500, WP013 00 |
| C15 | 22CBD104 | CAB AIR DUMP VLV | ESS 24/28VDC | 410-500, WP010 00 |
| C16 | 24CBD001 | BL AIR LKG DET-B | ESS 24/28VDC | 410-500, WP006 00 |

Figure 8. No. 5 Circuit Breaker Panel Assembly (52A-D092) (Sheet 2)

| | | | | |
|---|----------|----------------|--------------|-------------------|
| C17 | 33CBD001 | STBY ALTM | ESS 24/28VDC | 510-500, WP003 00 |
| C18 | 76CBD105 | UHF XCVR NO. 1 | ESS 24/28VDC | 600-500, WP005 00 |
| LEGEND | | | | |
| 1 161353 THRU 161359. | | | | |
| 2 161360 AND UP. | | | | |
| 3 Deleted. | | | | |
| 4 161353 THRU 161361. | | | | |
| 5 161362 AND UP. | | | | |
| 6 161353 THRU 161528 BEFORE F/A-18 AFC 49. | | | | |
| 7 161702 AND UP; ALSO 161353 THRU 161528 AFTER F/A-18 AFC 49. | | | | |
| 8 F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292. | | | | |

Figure 8. No. 5 Circuit Breaker Panel Assembly (52A-D092) (Sheet 3)

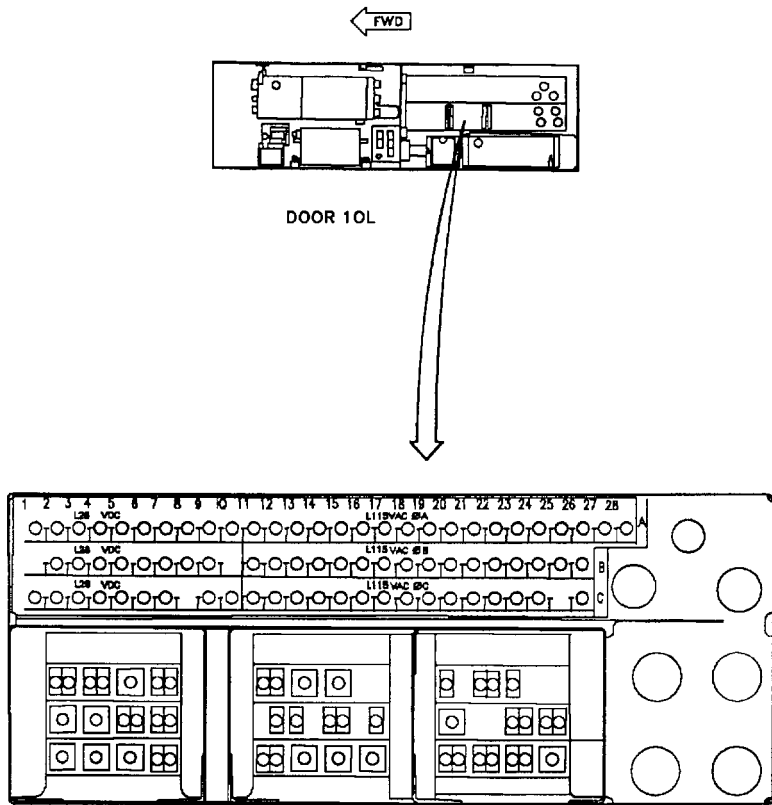


Figure 9. No. 7 Circuit Breaker/Relay Panel Assembly (52A-C057) (Sheet 1)





| 52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|---|----------|--------------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A1 | 77CBC006 | ARC 182 D-L | L 28VDC | 630-500, WP010 00 |
| A2 | 61CBC051 | ARM STA 1 | L 28VDC | 740-500, WP023 00 |
| A3 | 61CBC055 | ARM STA 2 | L 28VDC | 740-500, WP024 00 |
| A4 | 61CBC059 | ARM STA 3 | L 28VDC | 740-500, WP025 00 |
| A5 | 61CBC063 | ARM STA 4 | L 28VDC | 740-500, WP026 00 |
| A6 | 61CBC154 | MSTR ARM | L 28VDC | 740-500, WP016 00 |
| A7 | 74CBC006 | ILS | L 28VDC | 630-500, WP004 00 |
| A8  | 61CBC145 | ARM STA 2 AERO 5 | L 28VDC | 740-500, WP024 00 |
| A8  | 61CBC145 | ARM STA 2 28VDC | L 28VDC | 740-500, WP024 00 |
| A11 | 64CBC011 | ALQ-126 | L 115VAC ϕ A | 760-500, WP008 00 |
| A12 | 61CBC056 | ARM STA 2 | L 115VAC ϕ A | 740-500, WP024 00 |
| A13 | 61CBC060 | ARM STA 3 | L 115VAC ϕ A | 740-500, WP025 00 |
| A14 | 61CBC064 | ARM STA 4 | L 115VAC ϕ A | 740-500, WP026 00 |
| A15 | 74CBC003 | ILS | L 115VAC ϕ A | 630-500, WP004 00 |
| A16 | 22CBC080 | LCS PUMP | L 115VAC ϕ A | 410-500, WP014 00 |
| A17 | 22CBC077 | LCS FAN | L 115VAC ϕ A | 410-500, WP014 00 |
| A18 | 22CBC062 | L CABIN CLG FAN | L 115VAC ϕ A | 410-500, WP009 00 |
| A19 | 17CBC002 | L WING FOLD EDU | L 115VAC ϕ A | 570-500, WP027 00 |
| A20 | 83CBC006 | MISSION COMP NO. 1 | L 115VAC ϕ A | 741-500, WP009 00 |
| A21 | 28CBC003 | L AOA PROBE HTR | L 115VAC ϕ A | 560-500, WP006 00 |
| A22 | 3CBC038 | L BLD DR | L 115VAC ϕ A | 270-500, WP009 00 |
| A23 | 68CBC006 | INS | L 115VAC ϕ A | 730-500, WP004 00 |
| A24 | 7CBC005 | POSITN LTS | L 115VAC ϕ A | 440-500, WP003 00 |
| A25 | 7CBC029 | LDG/T LT | L 115VAC ϕ A | 440-500, WP003 00 |
| A26 | 61CBC052 | ARM STA 1 | L 115VAC ϕ A | 740-500, WP023 00 |
| A27  | 62CBC001 | ALR-67 | L 115VAC ϕ A | 760-500, WP011 00 |
| A28  | 62CBC002 | ALR-67 | L 115VAC ϕ A | 760-500, WP011 00 |
| B1 | 5CBC153 | FUEL PRESS | L 28VDC | 460-500, WP008 00 |
| B2 | 7CBC002 | EXT LTS CONT | L 28VDC | 440-500, WP003 00 |
| B3 | 13CBC001 | ANTI SKID | L 28VDC | 130-500, WP008 00 |
| B4 | 25CBC001 | SEAT ADJ | L 28VDC | 120-500, WP005 01 |
| B5 | 22CBC040 | EJCTR V | L 28VDC | 410-500, WP007 00 |
| B6 | 1CBC048 | GND PWR CONT | L 28VDC | 420-500, WP005 00 |
| B7 | 17CBC021 | WINGFOLD CONT B | L 28VDC | 570-500, WP027 00 |

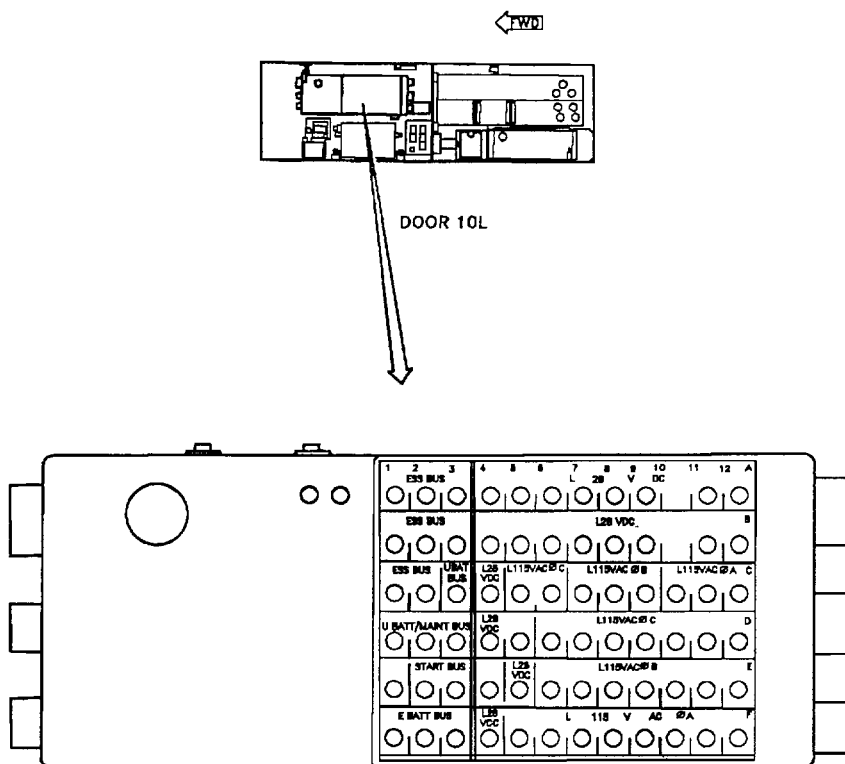
Figure 9. No. 7 Circuit Breaker/Relay Panel Assembly (52A-C057) (Sheet 2)

| 52A-C057 | | NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | |
|----------|---------|--|----------------------|----------------------------------|--------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- | |
| B8 | 6 | 61CBC144 | ARM STA 3 AERO 5 | L 28VDC | 740-500, WP025 00 |
| B8 | 7 | 61CBC144 | ARM STA 3 28VDC | L 28VDC | 740-500, WP025 00 |
| B9 | 1 | 62CBC005 | ALR-67 IND CONT/FLTR | L 28VDC | 760-500, WP011 00, WP012 00 |
| B11 | | 64CBC012 | ALQ-126 | L 115VAC ϕ B | 700-500, WP008 00 |
| B12 | | 61CBC057 | ARM STA 2 | L 115VAC ϕ B | 740-500, WP024 00 |
| B13 | | 61CBC061 | ARM STA 3 | L 115VAC ϕ B | 740-500, WP025 00 |
| B14 | | 61CBC065 | ARM STA 4 | L 115VAC ϕ B | 740-500, WP026 00 |
| B15 | | 74CBC004 | ILS | L 115VAC ϕ B | 630-500, WP004 00 |
| B16 | | 22CBC081 | LCS PUMP | L 115VAC ϕ B | 410-500, WP014 00 |
| B17 | | 22CBC078 | LCS FAN | L 115VAC ϕ B | 410-500, WP014 00 |
| B18 | | 22CBC063 | L CABIN CLG FAN | L 115VAC ϕ B | 410-500, WP009 00 |
| B19 | | 17CBC003 | L WING FOLD EDU | L 115VAC ϕ B | 570-500, WP027 00 |
| B20 | | 83CBC007 | MISSION COMP NO. 1 | L 115VAC ϕ B | 741-500, WP009 00 |
| B21 | | 28CBC001 | L PITOT PROBE HTR | L 115VAC ϕ B | 510-500, WP003 00 |
| B22 | | 3CBC039 | L BLD DR | L 115VAC ϕ B | 270-500, WP009 00 |
| B23 | | 68CBC007 | INS | L 115VAC ϕ B | 730-500, WP004 00 |
| B24 | | 7CBC012 | FORMATN LTS | L 115VAC ϕ B | 440-500, WP003 00 |
| B25 | | 15CBC001 | OXYGEN GAGE | L 115VAC ϕ B | 410-500, WP016 00 |
| B26 | 1 | 63CBC003 | ALR-67 | L 115VAC ϕ B | 760-500, WP011 00 |
| C2 | | 3CBC025 | L BL DR/ENG CONT | L 28VDC | 270-500, WP009 00 |
| C3 | | 3CBC021 | ENG IDLE/A-B LKOUT | L 28VDC | 270-500, WP008 00 |
| C4 | 9 | 84CBC101 | STICK STOP | L 28VDC | 570-500, WP006 00 |
| C5 | | 22CBC106 | LCS DR/PUMP CONT | L 28VDC | 410-500, WP014 00 |
| C6 | | 22CBC074 | LCS DR ACTR | L 28VDC | 410-500, WP014 00 |
| C7 | | 64CBC106 | ECM CLG | L 28VDC | 760-500, WP008 00 |
| C8 | 2 | 5CBC148 | VNT TNK SENSING | L 28VDC | 460-500, WP011 00 |
| C8 | 8 | 5CBC162 | FUEL TEST | L 28VDC | 460-500, WP007 06 |
| C9 | 3 | 5CBC157 | TANK 1 TRANSFER | L 28VDC | 460-200, WP013 00, Table 14 |
| | 5 | | | | |
| C9 | 4 | 5CBC157 | FUEL TRANSFER | L 28VDC | 460-200, WP013 00, Table 16 |
| | 5 | | | | |
| C11 | | 64CBC013 | ALQ-126 | L 115VAC ϕ C | 760-500, WP008 00 |
| C12 | | 61CBC058 | ARM STA 2 | L 115VAC ϕ C | 740-500, WP024 00 |
| C13 | | 61CBC062 | ARM STA 3 | L 115VAC ϕ C | 740-500, WP025 00 |

Figure 9. No. 7 Circuit Breaker/Relay Panel Assembly (52A-C057) (Sheet 1)

| 52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|---|----------|------------------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| C14 | 61CBC066 | ARM STA 4 | L 115VAC ϕ C | 740-500, WP026 00 |
| C15 | 74CBC005 | ILS | L 115VAC ϕ C | 630-500, WP004 00 |
| C16 | 22CBC082 | LCS PUMP | L 115VAC ϕ C | 410-500, WP014 00 |
| C17 | 22CBC079 | LCS FAN | L 115VAC ϕ C | 410-500, WP014 00 |
| C18 | 22CBC064 | L CABIN CLG FAN | L 115VAC ϕ C | 410-500, WP009 00 |
| C19 | 17CBC004 | L WING FOLD EDU | L 115VAC ϕ C | 570-500, WP027 00 |
| C20 | 83CBC008 | MISSION COMP NO. 1 | L 115VAC ϕ C | 741-500, WP009 00 |
| C21 | 28CBC005 | TOT TEMP SENS P HTR | L 115VAC ϕ C | 560-500, WP004 00 |
| C22 | 3CBC040 | L BLD DR | L 115VAC ϕ C | 270-500, WP009 00 |
| C23 | 68CBC008 | INS | L 115VAC ϕ C | 730-500, WP004 00 |
| C24 | 7CBC035 | STROBE LTS | L 115VAC ϕ C | 440-500, WP003 00 |
| C26 1 | 62CBC004 | ALR-67 | L 115VAC ϕ C | 760-500, WP011 00 |
| LEGEND | | | | |
| 1 161702 AND UP. | | | | |
| 2 161353 THRU 161357 BEFORE F/A-18 AFC 53. | | | | |
| 3 161520 THRU 161761. | | | | |
| 4 161924 AND UP. | | | | |
| <div style="border: 2px solid black; padding: 5px; display: inline-block;">WARNING</div> | | | | |
| 5 TO PREVENT POSSIBLE EXPLOSION AND FIRE IN FUEL TANKS, DO NOT CLOSE CIRCUIT BREAKER 5CBC157 UNTIL MALFUNCTION HAS BEEN FOUND. SEE TROUBLESHOOTING REFERENCE IN SCHEMATIC REFERENCE COLUMN. | | | | |
| 6 161353 THRU 161987 BEFORE F/A-18 AFC 48. | | | | |
| 7 162493 AND UP. | | | | |
| 8 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 53. | | | | |
| 9 161353 THRU 161987 BEFORE F/A-18 AFC 86. | | | | |

Figure 9. No. 7 Circuit Breaker/Relay Panel Assembly (52A-C057) (Sheet 2)



00601001

Figure 10. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161353 thru 161528 (Sheet 1)










| 52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|---|----------|--------------------------|--------------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A-  | 20CBC002 | CANOPY PWR | MAINT 24/ 28VDC | 120-500, WP005 00 |
| A-  | 1CBC136 | E BATT PWR/VOLT IND | E BATT 24/ 28VDC | 420-500, WP004 00 |
| A-  | 1CBC139 | GEN TIE | U BATT/MAINT 24/28VDC | 420-500, WP003 00 |
| A1 | 24CBC018 | B AIR LEAK DET LOOP A | ESS 24/28VDC | 410-500, WP006 00 |
| A2 | 4CBC002 | FIRE DET LOOP A | ESS 24/28VDC | 240-500, WP010 00 |
| A3 | 5CBC001 | EMER IFR | ESS 24/28VDC | 430-500, WP005 00 |
| A4 | 60CBC023 | RADAR NO. 3 | L 28VDC | 742-500, WP004 00 |
| A5  | 5CBC050 | FUEL LOW LVL WRN | L 28VDC | 460-500, WP013 00 |
| A5  | 5CBC050 | FUEL LOW LVL WRN | L 28VDC | 460-200, WP013 00, Table 16 |
| A6 | 5CBC101 | FUEL TK PRESS | L 28VDC | 430-500, WP011 00 |
| A7  | 5CBC115 | WING FUEL | L 28VDC | 460-200, WP013 00, Table 15 |
| A8 | 5CBC016 | EXT FUEL TK CONT | L 28VDC | 460-500, WP006 00 |
| A9 | 84CBC087 | NOSE WHL STRG | L 28VDC | 570-500, WP005 00 |
| A10  | 84CBC082 | APC | L 28VDC | 570-500, WP005 |
| A11 | 84CBC083 | ASY BK FCC | L 28VDC | 570-500, WP005 00 |
| A12 | 22CBC035 | L BL AIR CONT V | L 28VDC | 410-500, WP005 00 |
| B1 | 76CBC027 | INTER COMM | ESS 24/28VDC | 600-500, WP013 00 |
| B2 | 78CBC009 | IFF XMTR - REC | ESS 24/28VDC | 600-500, WP018 00 |
| B3 | 84CBC084 | RATIO CHANGER | ESS 24/28VDC | 570-500, WP015 00 |
| B4 | 60CBC026 | RADAR CONT | L 28VDC | 742-500, WP004 00 |
| B5 | 5CBC002 | IFR PROBE | L 28VDC | 460-500, WP005 00 |
| B6 | 1CBC088 | UTIL PWR REC | L 28VDC | 420-500, WP005 00 |
| B7 | 60CBC025 | RADAR NO. 2 | L 28VDC | 742-500, WP004 00 |
| B8 | 60CBC006 | RADAR NO. 1 | L 28VDC | 742-500, WP004 00 |
| B9 | 1CBC038 | L DC BUS SENSING | L 28VDC | 420-500, WP004 00 |
| B10  | 1CBC073 | EMER BATT CHG | L 28VDC | 420-500, WP004 00 |
| B11 | 61CBC092 | GND DCDR | L 28VDC | 750-500, WP004 00 |
| B12 | 10CBC016 | HYD ISOL | L 28VDC | 240-500, WP004 00 |
| C1 | 84CBC081 | PITCH TRIM | ESS 24/28VDC | 570-500, WP005 00 |
| C2 | 1CBC025 | CHECK BATT RELAY | ESS 24/28VDC | 420-500, WP004 00 |
| C3  | 1CBC039 | UTIL BATT STATUS | UTIL BATT 24VDC | 420-500, WP004 00 |

Figure 10. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161353 thru 161528
(Sheet 2)








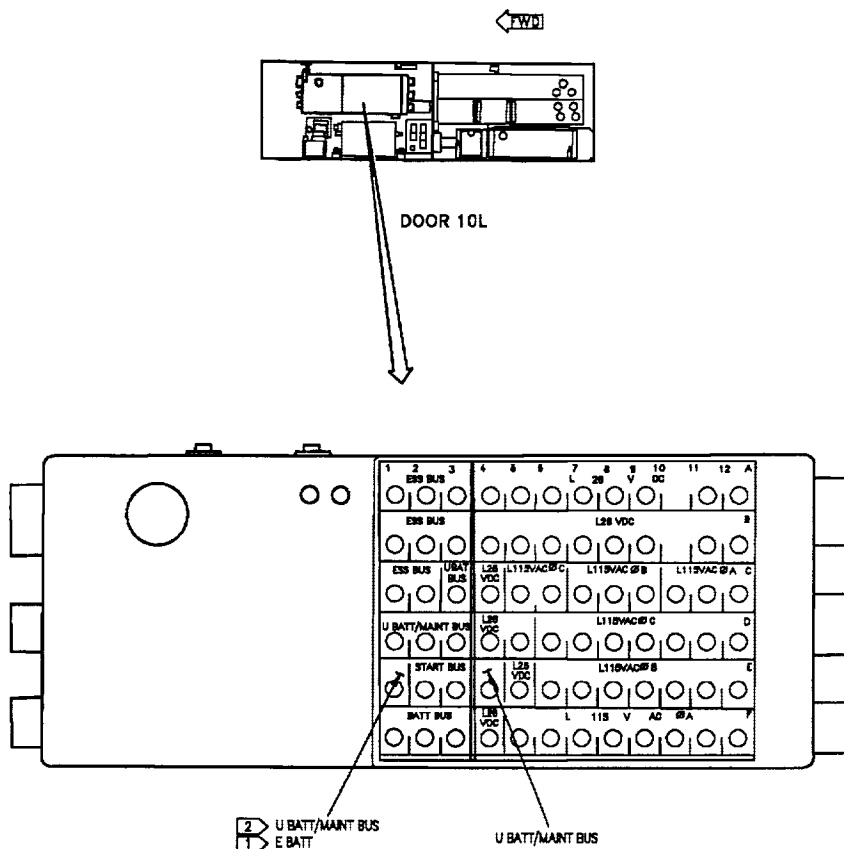
| 52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|---|----------|---------------------|-------------------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| C3  | 1CBC039 | U BATT PWR/VOLT IND | U BATT/ MAINT 24/ 28VDC | 420-500, WP004 00 |
| C4  | 8CBC105 | INT-LTS CONT-AFT | L 28VDC | 440-500, WP007 00 |
| C5  | 8CBC108 | INT-LTS CONT-AFT | L 115VAC ϕ C | 440-500, WP005 00 |
| C6 | 60CBC022 | RADAR NO. 2 | L 115VAC ϕ C | 742-500, WP004 00 |
| C7  | 8CBC107 | INT-LTS CONT-AFT | L 115VAC ϕ B | 440-500, WP005 00 |
| C8 | 78CBC004 | IFF CMPTR | L 115VAC ϕ B | 600-500, WP018 00 |
| C9 | 60CBC021 | RADAR NO. 2 | L 115VAC ϕ B | 742-500, WP004 00 |
| C10  | 8CBC106 | INT-LTS CONT-AFT | L 115VAC ϕ A | 440-500, WP005 00 |
| C11 | 61CBC091 | GUN DCDR | L 115VAC ϕ A | 750-500, WP004 00 |
| C12 | 60CBC020 | RADAR NO. 2 | L 115VAC ϕ A | 742-500, WP004 00 |
| D1 | 2CBC007 | APU PRIME | MAINT 24/ 28VDC | 240-500, WP004 00 |
| D2 | 85CBC004 | MSDRS | MAINT 24/ 28VDC | 580-500, WP005 00 |
| D3 | 5CBC023 | FUEL V POSITION | MAINT 24/ 28VDC | 460-500, WP008 00 |
| D4  | 25CBC003 | SEAT ADJ AFT | L 28VDC | 120-500, WP005 00 |
| D6 | 60CBC005 | RADAR NO. 1 | L 115VAC ϕ C | 742-500, WP004 00 |
| D7 | 61CBC050 | FU FCTN CONT | L 115VAC ϕ C | 740-500, WP042 00 |
| D8 | 5CBC003 | IFR LT | L 115VAC ϕ C | 430-500, WP005 00 |
| D9 | 1CBC087 | UTIL PWR REC | L 115VAC ϕ C | 420-500, WP005 00 |
| D10 | 1CBC029 | XFMR RECT | L 115VAC ϕ C | 420-500, WP004 00 |
| D11 | 80CBC012 | HSD | L 115VAC ϕ C | 745-500, WP004 00 |
| D12 | 80CBC006 | MMD | L 115VAC ϕ C | 745-500, WP004 00 |
| E1  | 20CBC002 | CANOPY PWR | MAINT 24/ 28VDC | 120-500, WP005 00 |
| E2 | 2CBC001 | APU | START 24/ 28VDC | 240-500, WP004 00 |
| E3 | 3CBC012 | ENGINE START | START 24/ 28VDC | 240-500, WP005 00 |
| E4 | 20CBC001 | CANOPY CONT | L 28VDC | 120-500, WP005 00 |
| E6 | 60CBC004 | RADAR NO. 1 | L 115VAC ϕ B | 742-500, WP004 00 |
| E7 | 61CBC049 | FU FCTN CONT | L 115VAC ϕ B | 740-500, WP042 00 |
| E8 | 5CBC054 | LIQ LVL CONT | L 115VAC ϕ B | 460-500, WP013 00 |
| E9 | 1CBC086 | UTIL PWR REC | L 115VAC ϕ B | 420-500, WP005 00 |

Figure 10. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161353 thru 161528 (Sheet 3)

| 52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|--|----------|---------------|-------------------|----------------------------------|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| E10 | 1CBC028 | XFMR RECT | L 115VAC ϕ B | 420-500, WP004 00 |
| E11 | 80CBC011 | HSD | L 115VAC ϕ B | 745-500, WP004 00 |
| E12 | 80CBC005 | MMD | L 115VAC ϕ B | 745-500, WP004 00 |
| F1 | 68CBC009 | INS | BATT 24VDC | 730-500, WP003 00 |
| F2 | 84CBC089 | FCS CH 1 | BATT 24VDC | 570-500, WP005 00 |
| F3 | 84CBC090 | FCS CH 2 | BATT 24VDC | 570-500, WP005 00 |
| F4 | 61CBC242 | TACTS | L28VDC | |
| F5 | 61CBC243 | TACTS | L 115VAC ϕ A | |
| F6 | 60CBC003 | RADAR NO. 1 | L 115VAC ϕ A | 742-500, WP004 00 |
| F7 | 61CBC048 | FU FCTN CONT | L 115VAC ϕ A | 740-500, WP042 00 |
| F8 | 1CBC075 | EMER BATT HTR | L 115VAC ϕ A | 420-500, WP004 00 |
| F9 | 1CBC085 | UTIL PWR REC | L 115VAC ϕ A | 420-500, WP005 00 |
| F10 | 1CBC027 | XFMR RECT | L 115VAC ϕ A | 420-500, WP004 00 |
| F11 | 80CBC010 | HSD | L 115VAC ϕ A | 745-500, WP004 00 |
| F12 | 80CBC004 | MMD | L 115VAC ϕ A | 745-500, WP004 00 |
| LEGEND | | | | |
| 1 F/A-18B. | | | | |
| 2 F/A-18A. | | | | |
| 3 161353 THRU 161359 BEFORE F18 AFC 8. | | | | |
| 4 Deleted. | | | | |
| 5 Deleted. | | | | |
| WARNING | | | | |
| 6 POSSIBLE EXPLOSION AND FIRE IN FUEL TANKS, DO NOT CLOSE CIRCUIT BREAKER 5CBC115; OR CIRCUIT BREAKER 5CBC050 AFTER F18 AFC 53 AND 161353 THRU 161519 AFTER F18 AFC 39; UNTIL MALFUNCTION HAS BEEN FOUND. SEE TROUBLESHOOTING REFERENCE IN SCHEMATIC COLUMN. | | | | |
| 7 BEFORE F18 AFC 49. | | | | |
| 8 AFTER F18 AFC 49. | | | | |
| 9 AFTER F18 AFC 48. | | | | |
| 10 BEFORE F18 AFC 53 AND 161353 THRU 161519 BEFORE F18 AFC 39. | | | | |

Figure 10. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161353 thru 161528 (Sheet 4)



**Figure 11. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161702 and up
(Sheet 1)**












| 52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|---|----------|--------------------------|--------------------------|--|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| A-  | 1CBC139 | GEN TIE | U BATT/MAINT 24/28VDC | 420-500, WP003 00 |
| A-  | 20CBC002 | CANOPY PWR | U BATT/MAINT 24/28VDC | 120-500, WP007 00 |
| A-  | 1CBC136 | E BATT PWR/VOLT IND | E BATT 24/ 28VDC | 420-500, WP004 00 |
| A1 | 24CBC018 | B AIR LEAK DET LOOP A | ESS 24/28VDC | 410-500, WP006 00 |
| A2 | 4CBC002 | FIRE DET LOOP A | ESS 24/28VDC | 240-500, WP010 00 |
| A3 | 5CBC001 | EMER IFR | ESS 24/28VDC | 460-500, WP005 00 |
| A4 | 60CBC023 | RADAR NO. 3 | L 28VDC | 742-500, WP004 00  |
| A5  | 5CBC050 | FUEL LOW LVL WRN | L 28VDC | 460-500, WP013 00, Table 17 |
| A6 | 5CBC101 | FUEL TK PRESS | L 28VDC | 460-500, WP011 00 |
| A7  | 5CBC115 | WING FUEL | L 28VDC | 460-200, WP013 00, Table 16 |
| A8 | 5CBC016 | EXT FUEL TK CONT | L 28VDC | 460-500, WP006 00 |
| A9 | 84CBC087 | NOSE WHL STRG | L 28VDC | 570-500, WP028 00 |
| A10  | 1CBC147 | BUD TIE | L 28VDC | 420-500, WP003 00 |
| A11 | 84CBC083 | ASY BK FCC | L 28VDC | 570-500, WP009 00 |
| A12 | 22CBC035 | L BL AIR CONT V | L 28VDC | 410-500, WP005 00 |
| B1 | 76CBC027 | INTER COMM | ESS 24/28VDC | 600-500, WP013 00 |
| B2  | 78CBC009 | IFF XMTR - REC | ESS 24/28VDC | 600-500, WP018 00 |
| B3 | 84CBC084 | RATIO CHANGER | ESS 24/28VDC | 570-500, WP005 00 |
| B4 | 60CBC026 | RADAR CONT | L 28VDC | 742-500, WP004 00  |
| B5 | 5CBC002 | IFR PROBE | L 28VDC | 460-500, WP005 00 |
| B6 | 1CBC088 | UTIL PWR REC | L 28VDC | 420-500, WP005 00 |
| B7 | 60CBC025 | RADAR NO. 2 | L 28VDC | 742-500, WP004 00  |
| B8 | 60CBC006 | RADAR NO. 1 | L 28VDC | 742-500, WP004 00  |
| B9 | 1CBC038 | L DC BUS SENSING | L 28VDC | 420-500, WP004 00 |
| B11 | 61CBC092 | GND DCDR | L 28VDC | 750-500, WP004 00 |
| B12 | 10CBC016 | HYD ISOL | L 28VDC | 240-500, WP004 00 |
| C1 | 84CBC081 | PITCH TRIM | ESS 24/28VDC | 570-500, WP005 00 |
| C2 | 1CBC025 | CHECK BATT RELAY SW | ESS 24/28VDC | 420-500, WP004 00 |
| C3 | 1CBC039 | U BATT PWR/VOLT IND | U BATT/MAINT 24/28VDC | 420-500, WP004 00 |

Figure 11. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161702 and up
(Sheet 2)

| 52A-C159 | | NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | |
|----------|------------|--|--------------------------|--|
| ZONE | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- |
| C4 | 1 8CBC105 | INT-LTS CONT-AFT | L 28VDC | 440-500, WP007 00 |
| C5 | 1 8CBC108 | INT-LTS CONT-AFT | L 115VAC ϕ C | 440-500, WP007 00 |
| C5 | 6 78CBC107 | BFN | L 28 VDC | 600-500, WP026 00 |
| C6 | 60CBC022 | RADAR NO. 2 | L 115VAC ϕ C | 742-500, WP004 00 6 |
| C7 | 1 8CBC107 | INT-LTS CONT-AFT | L 115VAC ϕ B | 440-500, WP005 00 |
| C8 | 5 78CBC004 | IFF CMPTR | L 115VAC ϕ B | 600-500, WP018 00 |
| C9 | 80CBC021 | RADAR NO. 2 | L 115VAC ϕ B | 742-500, WP004 00 6 |
| C10 | 1 8CBC106 | INT-LTS CONT-AFT | L 115VAC ϕ A | 440-500, WP005 00 6 |
| C11 | 61CBC091 | GUN DCDR | L 115VAC ϕ A | 750 500, WP004 00 |
| C12 | 60CBC020 | RADAR NO. 2 | L 115VAC ϕ A | 742-500, WP004 00 |
| D1 | 2CBC007 | APU PRIME | U BATT/MAINT 24/28VDC | 240-500, WP004 00 |
| D2 | 85CBC004 | MSDRS | U BATT/MAINT 24/28VDC | 580-500, WP005 00 |
| D3 | 5CBC023 | FUEL V POSITION | U BATT/MAINT 24/28VDC | 460-500, WP007 00 2 460-500, WP008 00 1 |
| D4 | 1 25CBC003 | SEAT ADJ AFT | L 28VDC | 120-500, WP005 01 |
| D5 | 7 68CBC012 | EGI | L 28VDC | 710-500, WP006 00 |
| D6 | 60CBC005 | RADAR NO. 1 | L 115VAC ϕ C | 742-500, WP004 00 6 |
| D7 | 61CBC050 | FU FCTN CONT | L 115VAC ϕ C | 740-500, WP042 00 |
| D8 | 5CBC003 | IFR LT | L 115VAC ϕ C | 460-500, WP005 00 |
| D9 | 1CBC087 | UTIL PWR REC | L 115VAC ϕ C | 420-500, WP005 00 |
| D10 | 1CBC029 | XFMR RECT | L 115VAC ϕ C | 420-500, WP004 00 |
| D11 | 80CBC012 | HSD | L 115VAC ϕ C | 745-500, WP004 00 |
| D12 | 80CBC006 | MMD | L 115VAC ϕ C | 745-500, WP004 00 |
| E1 | 1 1CBC136 | E BATT PWR/VOLT IND | E BATT 24/ 28VDC | 420-500, WP004 00 |
| E1 | 2 20CBC002 | CANOPY PWR | U BATT/MAINT 24/28VDC | 120-500, WP006 00 |
| E2 | 2CBC001 | APU | START 24/ 28VDC | 240-500, WP004 00 |
| E3 | 3CBC012 | ENGINE START | START 24/ 28VDC | 240-500, WP005 00 |
| E4 | 20CBC001 | CANOPY CONT | U BATT/MAINT 24/28VDC | 120-500, WP006 00 2 120-500, WP007 00 1 |
| E6 | 60CBC004 | RADAR NO. 1 | L 115VAC ϕ B | 742-500, WP004 00 6 |
| E7 | 61CBC049 | FU FCTN CONT | L 115VAC ϕ B | 740-500, WP042 00 |

Figure 11. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161702 and up
(Sheet 3)

| 52A-C159 | | | | | NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY | | | | |
|---|---|----------|---------------|---------------------|--|--|---|--|---|
| ZONE | | REF DES | NOMENCLATURE | BUS | SCHEMATIC REFERENCE A1-F18AC- | | | | |
| E8 | | 5CBC054 | LIQ LVL CONT | L 115VAC ϕ B | 460-500, WP013 00 | | | | |
| E9 | | 1CBC086 | UTIL PWR REC | L 115VAC ϕ B | 420-500, WP005 00 | | | | |
| E10 | | 1CBC028 | XFMR RECT | L 115VAC ϕ B | 420-500, WP004 00 | | | | |
| E11 | | 80CBC011 | HSD | L 115VAC ϕ B | 745-500, WP004 00 | | | | |
| E12 | | 80CBC005 | MMD | L 115VAC ϕ B | 745-500, WP004 00 | | | | |
| F1 | | 68CBC009 | INS | E BATT 24/ 28VDC | 780-500, WP003 00 | | 2 | | 1 |
| F2 | | 84CBC089 | FCS CH 1 | E BATT 24/ 28VDC | 570-500, WP005 00 | | | | |
| F3 | | 84CBC090 | FCS CH 2 | E BATT 24/ 28VDC | 570-500, WP005 00 | | | | |
| F4 | | 61CBC242 | TACTS | L 28VDC | | | | | |
| F5 | | 61CBC243 | TACTS | L 115VAC ϕ A | | | | | |
| F6 | | 60CBC003 | RADAR NO. 1 | L 115VAC ϕ A | 742-500, WP004 00 | | 6 | | |
| F7 | | 61CBC048 | FU FCTN CONT | L 115VAC ϕ A | 740-500, WP042 00 | | | | |
| F8 | | 1CBC075 | EMER BATT HTR | L 115VAC ϕ A | 420-500, WP004 00 | | | | |
| F9 | | 1CBC085 | UTIL PWR REC | L 115VAC ϕ A | 420-500, WP005 00 | | | | |
| F10 | | 1CBC027 | XFMR RECT | L 115VAC ϕ A | 420-500, WP004 00 | | | | |
| F11 | | 80CBC010 | HSD | L 115VAC ϕ A | 745-500, WP004 00 | | | | |
| F12 | | 80CBC004 | MMD | L 115VAC ϕ A | 745-500, WP004 00 | | | | |
| LEGEND | | | | | | | | | |
| 1 | F/A-18B. | | | | | | | | |
| 2 | F/A-18A. | | | | | | | | |
| 3 | 101702 AND UP FOR 5CBC115 AND ON 161925 AND UP FOR 5CBC050 THE WARNING BELOW PERTAINS: | | | | | | | | |
| WARNING | | | | | | | | | |
| TO PREVENT POSSIBLE EXPLOSION AND FIRE IN FUEL TANKS, DO NOT CLOSE CIRCUIT BREAKER UNTIL MALFUNCTION HAS BEEN FOUND. SEE TROUBLESHOOTING REFERENCE IN SCHEMATIC REFERENCE COLUMN. | | | | | | | | | |
| 4 | 162394 AND UP; ALSO 161702 THRU 161987 AFTER F18 AFC 48. | | | | | | | | |
| 5 | F/A-18A 162826 THRU 163175 AFTER F/A-18 AFC 253; ALSO F/A-18 BEFORE F/A-18 AFC 292. | | | | | | | | |
| 6 | F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292. NOTE: SCHEMATIC REFERENCE IS A1-F18AH-742-500. | | | | | | | | |
| 7 | F/A-18A AND F/A-18B 161925 THRU 163175 AFTER F/A-18 AFC 225 AND F/A-18 AFC 231; OR F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR F/A-18 AFC 292 AND AFTER F/A-18 AFC 231 PART 2 OR PART 3. | | | | | | | | |

Figure 11. No. 8 Circuit Breaker/Relay Panel Assembly (52A-C159) - 161702 and up
(Sheet 4)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

HUD DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B**Reference Material**

Fault Reporting Manual (Confidential) A1-F18AC-FRM-010/(C)

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| A/A Mode HUD Symbology (Figure 3) | 13 |
| A/C PU (Figure 4, Index 17) | 31 |
| A/C Pullup Release Cue (Figure 4, Index 29) | 31 |
| A/G Command Heading (Figure 2, Index 17) | 12 |
| A/G and NAV Command Heading (Figure 2, Index 17) | 12 |
| A/G Delivery Mode (Figure 4, Index 3) | 29 |
| A/G Gun/Rocket IN RNG (Figure 4, Index 24) | 32 |
| A/G Mode HUD Symbology (Figure 4) | 23 |
| A/G Not Ready X (Figure 4, Index 9) | 30 |
| A/G Reticle (Figure 4, Index 14) | 31 |
| AACQ (Figure 3, Index 12) | 19 |
| ACFT Waterline (Figure 1, Index 18) | 9 |
| ACL Cues (Figure 2, Index 5) | 11 |
| (Figure 2, Index 7) | 11 |
| ACL RDY (Figure 2, Index 7) | 11 |
| Airspeed (Figure 1, Index 17) | 9 |
| Airspeed, True (Figure 4, Index 20) | 32 |
| Altitude (Figure 1, Index 3) | 7 |
| Angle of Attack Scale (Figure 2, Index 13) | 12 |
| Angle of Attack, Digital (Figure 1, Index 15) | 9 |
| ASE Circle (Figure 3, Index 15) | 20 |
| ATC Cue (Figure 2, Index 13) | 12 |
| AUTO (Figure 4, Index 9) | 30 |
| Azimuth Steering Line (Figure 4, Index 6) | 30 |
| Bank Scale (Figure 2, Index 11) | 12 |
| Barometric Setting (Figure 1, Index 4) | 7 |
| Break-X (Figure 3, Index 18) | 21 |
| (Figure 4, Index 20) | 32 |
| BST Radar Coverage (Figure 3, Index 8) | 18 |
| CCIP (Figure 4, Index 9) | 30 |
| CCIP Time to Go (Figure 4, Index 1) | 30 |
| Command Heading, Data Link (Figure 1, Index 2) | 7 |
| Command Heading, NAV (Figure 2, Index 17) | 12 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Continuously Computed Impact Point (CCIP) Cross (Figure 4, Index 10) | 30 |
| CPL HDG (Figure 2, Index 7) | 11 |
| CPL P/R (Figure 2, Index 7) | 11 |
| DATA (Figure 1, Index 5) | 7 |
| Data Link Command Heading (Figure 1, Index 2) | 7 |
| (Figure 2, Index 1) | 11 |
| Data Link Discretes/Advisories (Figure 1, Index 5) | 7 |
| (Figure 1, Index 6) | 7 |
| Data Link Steering (Figure 2, Index 10) | 12 |
| Delivery Mode, A/G (Figure 4, Index 3) | 29 |
| Designator, Target (Figure 2, Index 10) | 12 |
| (Figure 3, Index 14) | 20 |
| Destination Range (Figure 1, Index 8) | 7 |
| Digital Angle of Attack (Figure 1, Index 15) | 9 |
| DISNGAGE (Figure 1, Index 5) | 7 |
| DUD (Figure 4, Index 11) | 30 |
| Field of View, Weapon (Figure 3, Index 2) | 18 |
| Flightpath/Pitch Ladder (Figure 1, Index 9) | 8 |
| FLIR (Figure 4, Index 13) | 31 |
| FLOOD (Figure 3, Index 11) | 19 |
| GACQ Radar Coverage (Figure 3, Index 3) | 18 |
| Ghost Velocity Vector (Figure 2, Index 15) | 12 |
| Ground Speed Caret/TICK (Figure 1, Index 16) | 9 |
| GUN (Figure 3, Index 6) | 18 |
| Gun R-MAX (Figure 3, Index 9) | 19 |
| Gun Reticle (Figure 3, Index 19) | 22 |
| Gun Rounds/Rockets Remaining (Figure 4, Index 22) | 32 |
| Gun/Rocket Reticle (Figure 4, Index 23) | 32 |
| HARM (Figure 1, Index 11) | 8 |
| (Figure 4, Index 3) | 30 |
| HARM Minimum Range Cue (Figure 4, Index 32) | 33 |
| HARM TOO Mode Cue (Figure 4, Index 18) | 31 |
| HARM/PLBK/Override Cue (Figure 1, Index 11) | 8 |
| HARM PU (Figure 4, Index 17) | 31 |
| HARM Pullup Release Cue (Figure 4, Index 30) | 33 |
| HDG TRUE (Figure 1, Index 19) | 9 |
| Heading (Figure 1, Index 1) | 7 |
| Heading Scale Caret (Figure 1, Index 18) | 9 |
| Head-Up Display Format (Figure 5) | 34 |
| Horizon Line (Figure 2, Index 6) | 11 |
| Hot Gun Cross (Figure 4, Index 8) | 30 |
| HP (Figure 4, Index 3) | 30 |
| Hud Data Format, Miscellaneous (Figure 5, Index 1) | 29 |
| HUD Window Data Format (Figure 5, Index 2) | 36 |
| Window 1 | 36 |
| Window 2 | 36 |
| Window 3 | 37 |
| Window 4 | 37 |
| Window 5 | 37 |
| Window 6 | 37 |
| Window 7 | 37 |
| Window 8 | 37 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| ILS Steering Symbology (Figure 2, Index 4) | 11 |
| Impact Line (Figure 4, Index 9) | 30 |
| (Figure 4, Index 15) | 31 |
| Impact Point Continuously Computed (Figure 4, Index 10) | 30 |
| In Range Cue (Figure 4, Index 17) | 31 |
| IN RNG (Figure 4, Index 17) | 31 |
| IN RNG, A/G Gun/Rocket (Figure 4, Index 24) | 32 |
| Introduction | 5 |
| JAM Code (Figure 3, Index 21) | 22 |
| LDT Track Symbol (Figure 3, Index 19) | 22 |
| (Figure 4, Index 16) | 31 |
| LOS (Figure 4, Index 12) | 31 |
| LOST (Figure 3, Index 12) | 19 |
| LST Designation Cue (Figure 4, Index 19) | 31 |
| Mach (Figure 1, Index 14) | 9 |
| MAN (Figure 4, Index 3) | 29 |
| Master Arm (Figure 3, Index 7) | 18 |
| MAV (Figure 4, Index 3) | 29 |
| Maverick LOS (Figure 4, Index 19) | 31 |
| Maximum Normal Acceleration (Figure 1, Index 12) | 8 |
| Miscellaneous HUD Data Format (Figure 5, Index 1) | 35 |
| Airspeed Window | 36 |
| Altitude Window | 35 |
| Barometric Setting Window | 35 |
| Closing Velocity (Range Rate) Window | 35 |
| HARM Override Cue Window | 36 |
| Laser Window | 35 |
| PLBK Override Cue Window | 36 |
| Range Window | 35 |
| Rounds Window | 35 |
| Sidewinder Override Window | 35 |
| Time of Flight Window | 35 |
| True Airspeed Window | 36 |
| Vertical Velocity Window | 35 |
| Weapon Count Window | 35 |
| Missile Time of Flight (Figure 3, Index 12) | 19 |
| Mode, A/G Delivery (Figure 4, Index 3) | 29 |
| Mode Independent HUD Symbology (Figure 1) | 6 |
| NAV Command Heading (Figure 2, Index 17) | 12 |
| NAV Mode HUD Symbology (Figure 2) | 10 |
| Normal Acceleration (Figure 1, Index 13) | 8 |
| Normalized In-Range Display (Figure 3, Index 9) | 19 |
| Nosewheel Steering Cue (Figure 1, Index 7) | 7 |
| NWS (Figure 1, Index 7) | 7 |
| NWS HI (Figure 1, Index 7) | 7 |
| OAP (Figure 1, Index 8) | 8 |
| OVRD (Figure 3, Index 6) | 18 |
| Peak Best Release Cue (Figure 4, Index 31) | 33 |
| Peak Maximum Release Cue (Figure 4, Index 29) | 33 |
| Peak Minimum Release Cue (Figure 4, Index 32) | 33 |
| Pitch Ladder (Figure 1, Index 9) | 8 |
| PLBK (Figure 1, Index 11) | 8 |
| Pullup Cue (Figure 4, Index 5) | 30 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Radar Acquisition Mode (Figure 3, Index 12) | 19 |
| Range Bar Tab (Figure 3, Index 9) | 19 |
| Range Rate (Figure 3, Index 10) | 19 |
| Range, TACAN (Figure 2, Index 9) | 11 |
| Range, Target (Figure 3, Index 11) | 19 |
| RDR (Figure 4, Index 13) | 31 |
| Release Cue (Figure 4, Index 1) | 29 |
| Remaining Rockets (Figure 4, Index 22) | 32 |
| Reticle Depression Numerics (Figure 4, Index 21) | 32 |
| Reticle, A/G (Figure 4, Index 14) | 31 |
| Reticle, Gun (Figure 3, Index 19) | 22 |
| Reticle, Gun/Rocket (Figure 4, Index 23) | 32 |
| Reticle, Stadiametric (Figure 3, Index 20) | 22 |
| R-AERO (Figure 3, Index 9) | 19 |
| R-MAX (Figure 3, Index 9) | 19 |
| R-MAX 1 (Figure 3, Index 9) | 19 |
| R-MAX 2 (Figure 3, Index 9) | 19 |
| R-MIN (Figure 3, Index 9) | 19 |
| R-No Escape (Figure 3, Index 9) | 19 |
| Rockets Remaining (Figure 4, Index 22) | 32 |
| Rockets/Gun Reticle (Figure 4, Index 23) | 32 |
| Rounds Remaining, Gun (Figure 4, Index 22) | 32 |
| Scale, Angle of Attack (Figure 2, Index 13) | 12 |
| Scale, Bank (Figure 2, Index 11) | 12 |
| Scale, Heading (Figure 1, Index 1) | 7 |
| SHOOT (Figure 3, Index 17) | 21 |
| (Figure 4, Index 24) | 21 |
| Shrike Selected (Figure 4, Index 31) | 33 |
| Sidewinder R-MIN (Figure 3, Index 19) | 22 |
| Sidewinder Seeker Circle (Figure 3, Index 16) | 20 |
| Stadiametric Reticle (Figure 3, Index 20) | 22 |
| Steering, Data Link (Figure 2, Index 10) | 12 |
| Steering Dot (Figure 3, Index 13) | 20 |
| Steering, ILS (Figure 2, Index 4) | 11 |
| Steering Line, Azimuth (Figure 4, Index 6) | 30 |
| Steering, TACAN (Figure 2, Index 3) | 11 |
| Steering, Waypoint (Figure 2, Index 3) | 11 |
| TACAN Range (Figure 2, Index 9) | 11 |
| TACAN Station Ident (Figure 2, Index 9) | 11 |
| TACAN Steering (Figure 2, Index 3) | 11 |
| Target Designator (Figure 2, Index 16) | 12 |
| (Figure 3, Index 14) | 20 |
| (Figure 4, Index 7) | 30 |
| Target Range (Figure 3, Index 11) | 19 |
| TDC Priority Symbol (Figure 2, Index 12) | 12 |
| (Figure 4, Index 27) | 33 |
| TCN (Figure 1, Index 8) | 8 |
| TGT (Figure 1, Index 8) | 8 |
| THP (Figure 4, Index 3) | 29 |
| TILT (Figure 1, Index 5) | 7 |
| Time Display (Figure 2, Index 14) | 12 |
| Time of Flight, Missile (Figure 3, Index 12) | 19 |
| Time to Go (Figure 4, Index 4) | 29 |
| Time to Go, CCIP (Figure 4, Index 1) | 29 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Time to Go to Maximum Range (Figure 4, Index 4) | 29 |
| TIMING (Figure 4, Index 2) | 29 |
| True Airspeed (Figure 4, Index 26) | 33 |
| True Heading Reference (Figure 1, Index 19) | 9 |
| TRUE HDG (Figure 1, Index 19) | 9 |
| TTG (Figure 3, Index 12) | 19 |
| TTMR (Figure 4, Index 4) | 29 |
| VACQ Bars (Figure 3, Index 1) | 18 |
| Velocity Vector (Figure 1, Index 10) | 8 |
| Velocity Vector, Ghost (Figure 2, Index 15) | 12 |
| Vertical Velocity (Figure 2, Index 2) | 11 |
| WACQ (Figure 3, Index 11) | 19 |
| WACQ Box (Figure 3, Index 4) | 18 |
| WACQ Grid (Figure 3, Index 4) | 18 |
| Waterline (Figure 1, Index 17) | 9 |
| Waypoint Steering (Figure 2, Index 3) | 11 |
| WE (Figure 4, Index 3) | 29 |
| Weapon Field of View (Figure 3, Index 2) | 18 |
| Weapon Type and Weapon Count (Figure 3, Index 6) | 18 |
| WEDL (Figure 4, Index 3) | 29 |
| WYPT (Figure 1, Index 8) | 8 |
| 7F (Figure 3, Index 6) | 18 |
| 7H (Figure 3, Index 6) | 18 |
| 7M (Figure 3, Index 6) | 18 |
| 9L (Figure 3, Index 6) | 18 |
| 9M (Figure 3, Index 6) | 18 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to HUD displays. The illustrations are not meant to represent

typical displays, but to provide general appearance and positioning of the elements which make up HUD displays. The descriptions may contain schematic references which show the development of the display elements.

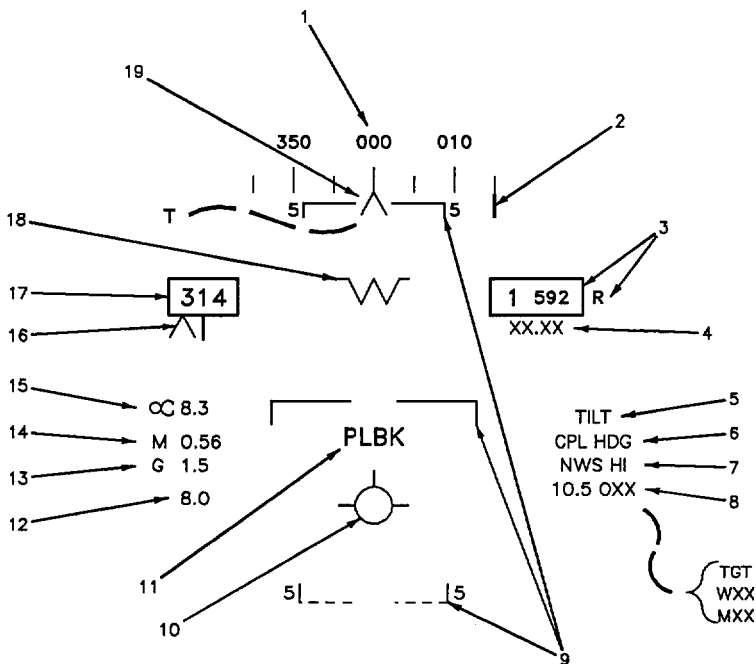


Figure 1. Mode Independent HUD Symbolry (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 1 | Heading (ØUHSCD) | Magnetic heading displayed if valid, and indicated on moving 30° scale. Moving scale provides trend information during turns. Not displayed if HUD REJ 2 selected (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 2 | Data Link/ WYPT/OAP Command Heading (ØUCHDX) (ØUCMDH) | <ol style="list-style-type: none"> 1. The DL command heading symbol is displayed in vector mode if vector data is valid, command heading is valid and heading (index 1) is displayed (Vector Mode Coupled Heading Functional Schematic A1-F18AC-680-510(C), WP012 02). 2. The waypoint/offset aimpoint command heading is displayed when WYPT or OAP steering is selected. Provides steering to the selected WYPT/OAP. <p>When a target or OAP has been designated, symbol is replaced by diamond (figure 2, index 17) (Bombing/Navigation Functional Schematic, A1-F18AC-730-500, WP019 00).</p> |
| 3 | Altitude (ØUATD 1, ØUATD2) | <ol style="list-style-type: none"> 1. With ALT switch in BARO, barometric altitude is displayed in a box if valid (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). 2. With ALT switch in BARO and barometric altitude is displayed, the Standby Altimeter indication should agree to within ± 320 feet in altitude (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). 3. With ALT switch in RDR, radar altitude is displayed in a box and identified by an R next to the box. If RDR selected but not valid, barometric altitude is displayed with a flashing B replacing the R. If barometric altitude also not valid, only flashing B is displayed. <p>The thousand and ten thousand digits are larger than the tens, hundreds, and units except when altitude less than 1000 feet, then all digits are large size. Box is removed if HUD REJ 1 selected (Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00).</p> |
| 4 | Barometric Setting (ØUPRS1) | The barometric setting displays the value set in the Standby Pressure Altimeter AAU-39A. When the setting is changed, the new value is displayed for 5 seconds. It is also displayed and flashed for 5 seconds when aircraft altitude is below 10,000 feet and airspeed below 300 knots, after having been above both values (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 5 | Data Link Discretes/ Advisories (ØUHDW5) | DL message discretes which appear in this area in vector mode are DATA, TILT, and DISNGAGE (Vector Mode Command Data Functional Schematic, A1-F18AC-630-510(C) WP012 01). |
| 6 | Data Link Discretes/ Advisories (ØUHDW6) | CPL HDG displayed when FCS is coupled to data link vector mode heading command. Flashed for 10 seconds, then removed if couple unsuccessful or uncouple occurs when not commanded (Vector Mode Coupled Heading Functional Schematic, A1-F18AC-630-510(C), WP012 02). |
| 7 | Nosewheel Steering Cue (ØUHDW7) | NWS is displayed when nosewheel steering is engaged and weight on wheels. If high gain mode selected, NWS HI is displayed (Nosewheel Steering Functional Schematic, A1-F18AC-570-500, WP028 00). |

Figure 1. Mode Independent HUD Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 8 | Destination Range (ØUHDW8) | Steering destination range numerics, destination type, and destination number are displayed in NAV and A/G modes. If waypoint steering is selected and the current waypoint has offsets the range to the OAP, the letter O, and the OAP number are displayed. When waypoint steering is selected and the current waypoint/mark does not have offsets, range numerics, W (waypoint) or M (mark) and the waypoint or mark number are displayed. If a target is designated, target range and TGT are displayed. TACAN steering is indicated by displaying TACAN range and TACAN station identifier (figure 2, index 9). Display removed if HUD REJ 2 selected (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 9 | Flightpath/ Pitch Ladder (ØULADX) | Vertical flightpath angle is indicated by the position of the velocity vector (index 10) on the flightpath/pitch ladder. The lines represent the horizon and each 5° of pitch between plus and minus 90°. Positive angles are indicated by solid lines above the horizon line. Negative angles are indicated by dashed lines below the horizon line. The outer segments of the lines point toward the horizon. Each line, except for the horizon line, is numbered and the numbers rotate with roll to remain upright with true vertical. During climbs or dives the lines are angled toward the horizon at an angle half that of the flightpath. If the aircraft water line symbol (index 18) is displayed, the flightpath/pitch ladder is referenced to it instead of the velocity vector. During near vertical dives or climbs, the zenith (represented by a circle) or nadir (represented by a circled X) is displayed for more flightpath information (not shown). Flightpath/pitch Ladder lines are blanked when required to prevent obstruction of the Heading Scale (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 10 | Velocity Vector (ØUVVNX) | The velocity vector provides reference to the aircraft flightpath. Its position is limited to an 8° radius at the optical center of the HUD. If this limit is exceeded, the velocity vector flashes rapidly. If LNS velocity data are not valid, air data computer system velocity is used to compute the vector. This degraded state is indicated by a blow flashing of the velocity vector. Velocity vector is caged in A/A mode (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 11 | HARM/PLBK/ Override Cue (ØUHRM 1) | HARM is displayed if HARM aboard, self-protect pullback exists, and HARM ready for launch. If HARM not ready for launch, HARM is displayed, superimposed by a large X. If PLBK override selected, PLBK is displayed (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP052 02). |
| 12 | Maximum Normal Acceleration (ØUMXG1) | Maximum normal acceleration is displayed when a threshold of 4.0 positive G is exceeded. It is removed if HUD REJ 1 or REJ 2 selected (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 13 | Normal Acceleration (ØUNMAL) | Normal acceleration symbol (G) and number from INS or electronic flight controls. If not available from either source, only G is displayed. If normal acceleration level less than 4.0 G and maximum normal acceleration (index 12) not displayed, both symbol G and number are removed with HUD REJ 1 or REJ 2 selected or landing gear down (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |

Figure 1. Mode Independent HUD Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 14 | Mach (ØUMCHL, ØUMDH1) | Mach symbol (M) and number from air data computer system. If mach not valid, only M is displayed. Both M and number are removed if HUD REJ 1 or REJ 2 selected or landing gear down (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 15 | Angle of Attack, Digital (ØUAØAL, ØIAØA1) | True angle of attack from the air data computer system or electronic flight controls is α displayed in degrees. If data is not valid from either source, only symbol (α) is displayed or when velocity vector (index 10) is within the angle of attack scale (figure 2, index 13), symbol is blanked (Air Data Computer System Angle of Attack Functional Schematic, A1-F18AC-560-500, WP005 00). |
| 16 | Ground Speed Caret/Tick (ØURGSX, ØUGSPX) | Displayed when required ground speed for waypoint sequential steering is valid, aircraft ground speed is valid and HUD reject is not selected. Indicated relationship of aircraft speed to speed required to arrive at the next waypoint of the required time on target. Caret to the left of the tick indicates speed is slow; to the right, speed is fast (Auto Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 17 | Airspeed (ØUARS1) | Calibrated Airspeed from air data computer system displayed if valid. Top of airspeed box is set at aircraft waterline. Removed when HUD REJ 1 selected (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 18 | ACFT Waterline (ØUACSY) | The aircraft waterline symbol is displayed if the velocity vector is not valid, if valid but limited, or when landing gear is down. Provided pitch attitude reference. |
| 19 | Heading Scale Caret (ØUHDGM) True Heading T | An inverted V pointer is displayed to indicate aircraft magnetic heading (HDG MAG active) on the heading scale. The inverted V is replaced by a T when True heading reference (HDG TRUE) is active (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |

Figure 1. Mode Independent HUD Symbology (Sheet 4)

NAV Mode HUD Symbology

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 1 | Data link Command Heading (ØUCMDH) | The DL command heading symbol is displayed in ACL mode if valid traffic control messages are being received (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-5101(C), WP009 00). |
| 2 | Vertical Velocity (ØUVRV1) | Altitude rate of change in feet per minute is displayed. Descent is indicated by negative values (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 3 | TACAN/Waypoint Situation Steering Symbology (ØUSTRX, ØUSD1X) | Displayed when TACAN or Waypoint steering is selected if steering data are valid. The arrow indicates ground track. The outer dot indicates full scale deflection of the arrow (8°) and the inner dot indicates half scale deflection (4°) (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 4 | ILS Steering Symbology (ØUILGX, ØUILLX) | If ILS steering is selected, azimuth and/or elevation deviation bars are displayed, if valid. Both are referenced to the velocity vector and provide course steering (Instrument Landing System Functional Schematic, A1-F18AC-630-500, WP004 00). |
| 5 | ACL Cues (ØUHDW5) | ACL cue which appears in this area is 10 SEC (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 6 | Horizon Line (ØULADH) | Integral part of flightpath/pitch ladder (figure 1, index 9). In NAV mode becomes elongated when landing gear is down (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 7 | ACL Cues (ØUHDW6) | ACL RDY displayed when ACL RDY discrete received by data link. CPL P/R displayed when FCS is coupled to data link pitch and roll commands. Flashed for 10 seconds and removed when couple unsuccessful or uncouple occurs when not commanded. CPL HDG displayed when FCS coupled to data link heading command. CPL BNK is displayed while the autopilot is coupled to the bank command in FD mode. Flashed for 10 seconds and removed when couple unsuccessful or uncouple occurs when not commanded (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 8 | ATC Cue (ØUHDW7) | ATC displayed while automatic throttle control is engaged. Flashed for 10 seconds and removed if ATC fails to engage or if ATC is disengaged for any reason other than actuation of ATC Engage/Disengage switch on throttle (Approach Power Compensation Functional Schematic, A1-F18AC-570-500, WP029 00). |
| 9 | TACAN RANGE and Station Ident. Code (ØUHDW8) | If TACAN steering selected and TACAN range valid, range is displayed. If TACAN steering selected and TACAN station ident valid, station ident is displayed. Displayed in all master modes. Both range and station are removed by selecting HUD REJ 2 (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |

Figure 2. NAV Mode HUD Symbology (Sheet 2)

NAV Mode HUD Symbology (Continued)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------------|--|
| 10 | Data Link Steering Symbol (ØUDLSX) | Displayed during data link system ACL mode if DL steering selected, valid ACL messages are being received, and DL lateral and vertical glide slope data are valid (Data Link Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 11 | Bank Scale (ØUBANK) | The bank angle scale and pointer indicate bank angles to $\pm 45^\circ$. The pointer is limited to 47° and flashed when limited. Both scale and pointer are removed by selecting HUD REJ 1 (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 12 | TDC Priority (ØUTDCX, ØUVTDX) | If TDC priority is assigned to HUD, a dot is displayed inside the velocity vector (figure 1, index 10) and designator diamond (index 16), (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 13 | Angle of Attack Scale (ØUAASX) | Scale is displayed in NAV Master Mode when landing gear is down. Center of scale indicates best approach angle with respect to the velocity vector. Scale is limited to the HUD field of view (Air Data Computer System Angle of Attack Functional Schematic, A1-F18AC-560-500, WP005 00). |
| 14 | Time Display (ØUTIME, ØUTIM(1-4)) | Countdown (CD) time, elapsed time (ET), or time of day displayed when selected by way of UFC. Time is removed if HUD SYM switch set to REJ2 or aircraft is in landing mode. |
| 15 | Ghost Velocity Vector (ØUVVGX) | In the NAV mode, the velocity vector may be caged to the vertical center line of the HUD display with the CAGE/UNCAGE switch. When caged, a ghost velocity vector is displayed at the true velocity vector position. The ghost vector is blanked when within 2° of the velocity vector, and is flashed when limited. |
| 16 | Target Designator (TD) (ØUNTDX) | Displayed when targets or offset aimpoint (OAP) are designated by throttle designator control (TDC) in NAV and A/G modes or when Radar is locked on or has a TWS target in full up mode. Provides position of designated target/OAP but is limited and flashed when target/OAP is outside HUD field of view. While TDC is pressed, center one-third of each side of diamond is blank. Dot in center only if TDC priority at HUD. TD is blanked when the bearing to the designated point exceeds 90° (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 17 | A/G and NAV Command Heading (ØUCMDH) | Displayed in NAV or A/G Modes only. Heading (figure 1, index 1) must be displayed and a target or offset aimpoint designated to enable this symbol. Provides steering to the designated offset aimpoint or target. |
| 18 | LDT Track Symbol (ØULSTX) | Displayed when laser spot tracker is tracking a target. Flashes when limited at HUD field of view. Displayed at line of sight position of target (LDT System Interconnect Schematic, A1-F18AC-743-500, WP004 00). |

Figure 2. NAV Mode HUD Symbology (Sheet 3)

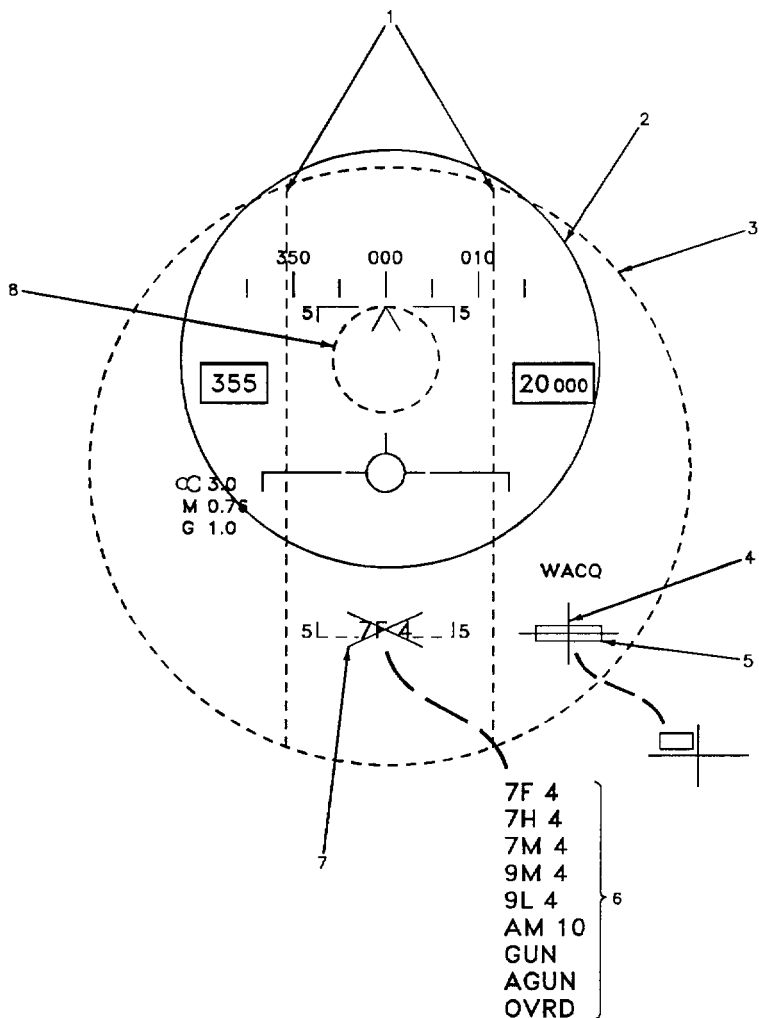


Figure 3. A/A Mode HUD Symbolology (Sheet 1)

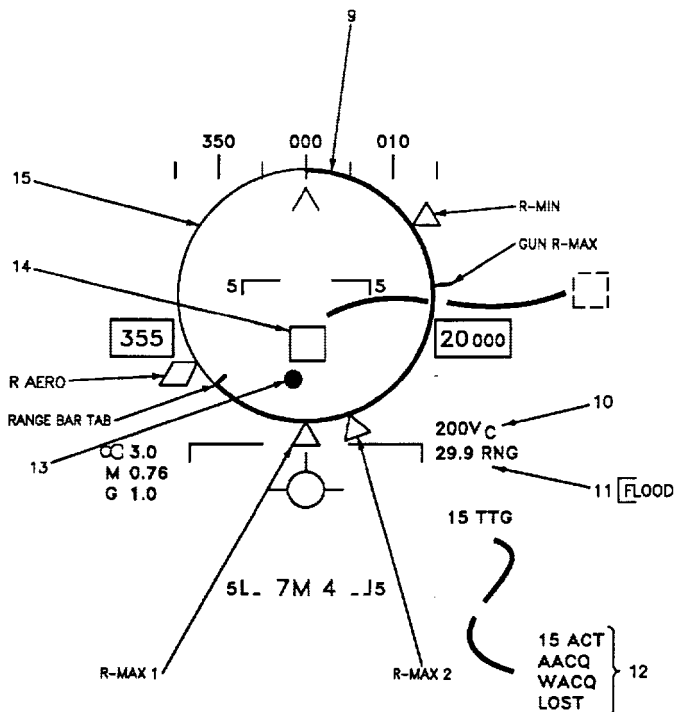
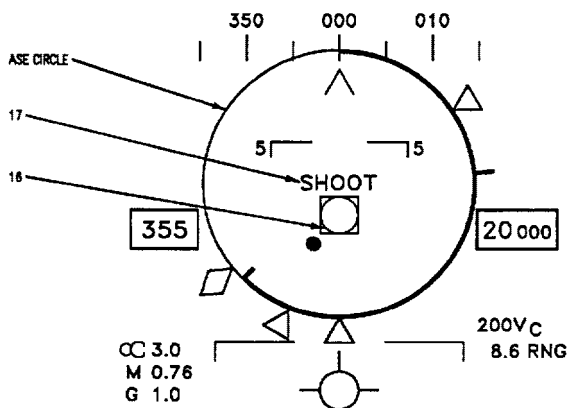


Figure 3. A/A Mode HUD Symbology (Sheet 2)



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Figure 3. A/A Mode HUD Symbolry (Sheet 3)

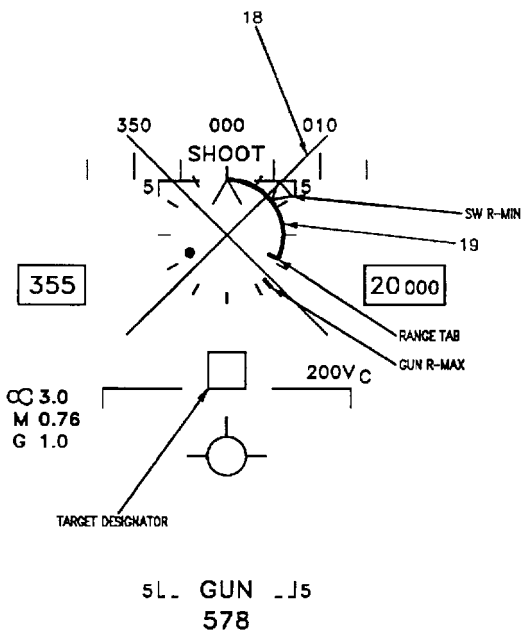
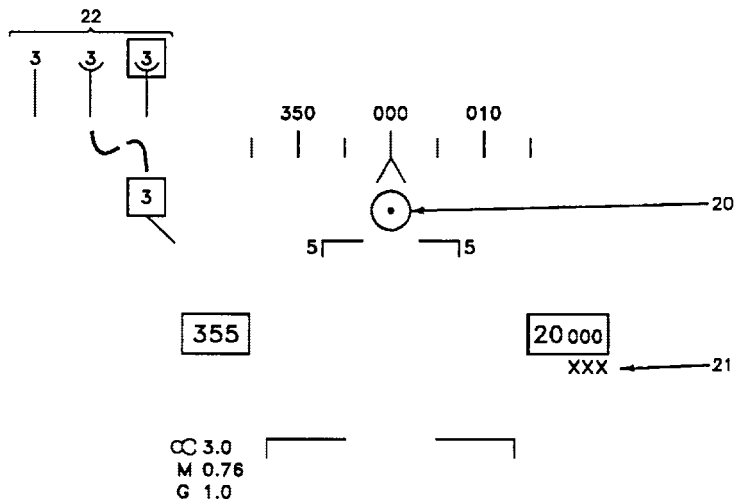


Figure 3. A/A Mode HUD Symboly (Sheet 4)



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Figure 3. A/A Mode HUD Symbolry (Sheet 5)



| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 1 | VACQ Bars (ØUBRST) | Displayed if radar is in vertical acquisition (VACQ) mode and not in track. Indicates area of radar beam coverage (Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00). |
| 2 | Weapon Field of View (ØUASEX, ØUASER, ØUAMFV) | Displayed when the radar is not locked on and the target is not in the launch range envelope. The circle diameter is determined by weapon selected and track status (field of view pictured is for AIM-7, AMRAAM is dashed circled, and AIM-9 field of view smaller) (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 3 | GACQ Radar Coverage (ØUBRST) | Displayed if radar is in HUD acquisition (GACQ) mode and not in track. Indicates the radar scan coverage, includes the total HUD field of view (Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00). |
| 4 | WACQ Grid (ØUWAGX) | Displayed when radar mode is WACQ to indicate body referenced radar antenna limits. The center of the grid represents antenna boresight. Grid ends indicate ± 70CLASSIFICATION MACROS degrees in azimuth and elevation. |
| 5 | WACQ Box (ØUWAQX) | Displayed with WACQ grid (index 4) to indicate WACQ scan limits. When WACQ is uncaged the box is approximately 15 degrees elevation and 30 degrees azimuth. The caged box is fixed and is 15 degrees elevation and 60 degrees azimuth. |
| 6 | Weapon Type and Weapon Count (ØUWPN1, ØUWPN2, ØUWPN4) | When AIM-7, AIM-9, or AMRAAM selected, the weapon type (7F, 7H, 7M, 9M, 9L, AM) and number of available missiles are displayed. When the gun is the selected weapon, GUN is displayed with the number of rounds remaining below it.  AGUN and the number of rounds remaining are displayed when smart trigger (AGUN) is selected in the director mode. If no gun rounds are available or gun encoder-decoder fail exists, XXX is displayed beneath GUN.  When Sidewinder is selected and the cage/uncage switch is pressed and held for more than 0.8 seconds OVRD is displayed below the weapon type display. OVRD is reset by missile launch, STEP, weapon deselected, or cage/uncage pressed again for less than 0.8 sec (LOS step). (Weapon Select Schematic, A1-F18AC-740-500, WP015 00). |
| 7 | Master Arm (ØUWPN4) | The large X through the selected weapon type (index 6) indicates that the MASTER switch is in SAFE. When the switch is in ARM and SIM mode is not selected, the X is removed (Master Arm Schematic, A1-F18AC-740-500, WP016 00). |
| 8 | BST Radar Coverage (ØUBRST) | Displayed if radar is in boresight (BST) acquisition mode and not in track. Indicates area of radar beam coverage (Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00). |

Figure 3. A/A Mode HUD Symbolgy (Sheet 6)


| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 9 | Normalized In-Range Display (ØURETX) | <p>Displayed if sidewinder or sparrow selected, radar is in single target track or TWS mode, and target is in range envelope. Display is made up of reference circle with center at aircraft waterline range bar tab displayed inside and touching the circle, and weapon launch envelope range markers (R-MIN, R-MAX/R-MAX 1, R-No Escape/R-MAX 2) on the outside of the circle. R-MIN is fixed at the 2:30 o'clock position and R-MAX/R-MAX 1 at the 6 o'clock position. R-No Escape/R-MAX 2 is maximum launch range against a maneuvering target and floats between R-MIN And</p> <p>Displayed if sidewinder or sparrow selected, radar is in single target track or TWS mode, and target is in range envelope. Display is made up of reference circle with center at aircraft waterline range bar tab displayed inside and touching the circle, and weapon launch envelope range markers (R-MIN, R-MAX/R-MAX 1, R-No Escape/R-MAX 2) on the outside of the circle. R-MIN is fixed at the 2:30 o'clock position and R-MAX/R-MAX 1 at the 6 o'clock position. R-No Escape/R-MAX 2 is maximum launch range against a maneuvering target and floats between R-MIN And R-MAX 1.  R-AERO is the maximum aerodynamic range to adequately maneuver. The maximum effective gun range (Gun R-MAX) is indicated by a tab displayed outside and touching the circle (not displayed in TWS mode). The range bar tab is limited to the 12 o'clock position and rotates counterclockwise as range decreases, providing pilot with trend information and range cuing (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00).</p> |
| 10 | Range Rate (ØUCLR 1) | Range rate in knots is displayed when it is available from the radar. Closing velocities (Vc) are displayed as positive numbers and opening velocities are displayed as negative numbers (Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AC-742-500, WP026 00). |
| 11 | Target Range/FLOOD (ØURNR1) | Absolute target range in nautical miles and tenths of miles displayed if valid. If more than 99.9 nautical miles 99.9 displayed (Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AC-742-500, WP003 00). Not displayed in A/A Gun mode. FLOOD displayed when flood antenna commanded on and not in an auto acquisition mode. FLOOD not displayed when WACQ (index 12) is selected. (Flood Selection and Display Schematic, A1-F18AC-742-500, WP025 00). |
| 12 | Missile Time of Flight (ØUTDF1, ØUTDF2, ØUTDF3) | <p>For Sparrow: Displayed when missile is selected, radar is not in search, and target is within RMAX 1. Indicates time of flight of missile in seconds, if released. When launched, display is TTG (time to go) in seconds until missile arrives at target. When time to go counts to zero and radar still tracking target, LOST is displayed and flashed for 5 seconds (Shoot and Missile Time-of-Flight Display Schematic, A1-F18AC-742-500, WP027 00).</p> <p>For AMRAAM: During pre-launch, the number is displayed to indicate the time (in seconds) that an immediately launched AMRAAM would require to become active. If R active reached before launch, the number will remain at zero. When launch is from outside R active, ACT will be displayed. When R active is reached, time to go (TTG) will appear to indicate the time (in seconds) until impact. When launch is within R active, TTG is displayed immediately. LOST is displayed and flashed for 5 seconds when target range is greater than RMAX.</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 7)




| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| | Radar Acquisition switch set to Mode (ØUTDF1, ØUTDF2, ØUTDF3) | Also displayed when SIM mode selected. AACQ displayed when radar is in auto acquisition mode (sensor select switch set to right). WACQ displayed when radar is in wide acquisition mode (sensor select left). |
| 13 | Steering Dot (ØUDØTX) | Displayed when missile selected if radar is in full track or has a TWS target. It is flashed when radar antenna is near gimbal limits. Provided pilot with command steering when used with ASE circle (index 15). To complete the attack, aircraft must be flown to put steering dot inside ASE circle. Not displayed when sidewinder missile and radar are tracking different targets (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 14 | Target Designator (ØUATDX, ØUATDR) | Displayed in all A/A weapon modes when radar is angle tracking  or TWS file is valid when not TWS search (spotlight). Identifies radar line of sight. Symbol flashes if radar line of sight is outside HUD field of view and when shoot cue (index 17) flashes. If radar is in track memory,  except TWS  or TWS L and S target track memory or STT track memory, the center of each side of the square is blanked. Target designator is rotated 45° when a NCTR identification is being made. Target designator is segmented when TWS L and S target is in track memory or STT track memory. Time in track memory, in seconds is displayed above target designator if weapon is in flight (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 15 | ASE Circle (ØUASEX) | The allowable steering error (ASE) circle is displayed when the radar is locked on and the target is not in the launch range envelope. The circle is a fixed diameter. ASE circle is flashed when radar-tracked target is approaching radar gimbal limits (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 16 | Sidewinder Seeker Circle (ØUSKRX) | Displayed with sidewinder selected if sidewinder is slave to radar line of sight or tracking a target or caged at boresight. Center of circle indicates position of the selected missile seeker head. Symbol is limited to HUD field of view and flashes with shoot cue (index 17) when limited (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |

Figure 3. A/A Mode HUD Symbology (Sheet 8)






| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 17 | SHOOT (ØUSHTX) | <p>1. Displayed with sparrow selected if:</p> <ul style="list-style-type: none"> a. Sparrow missile loaded on aircraft. b. Radar in full track. c. Target inside  R-AERO  R MAX 1, outside R-MIN. d. Master Arm selected. e. Sparrow tuned. f. Radar in high PRF and not intrack memory. g. Target within missile seeker range. h. Steering dot inside ASE circle. i. Target not inside main beam clutter. <p>Meeting all above requirements results in display of a steady SHOOT cue. If target inside R-MAX 2 (R NO ESC) and outside R-MIN, a flashing SHOOT is displayed.</p> <p>2. Flashing SHOOT displayed with sidewinder selected if:</p> <ul style="list-style-type: none"> a. Sidewinder missile loaded on aircraft. b. Target inside R-MAX 2 (R NO ESC), outside R-MIN. c. Master Arm selected. d. Steering dot inside ASE circle. e. Radar is tracking a target. f. Missile seeker locked on to same target as radar. <p> If target is inside R-AERO, a steady SHOOT will be displayed.</p> <p>3. Steady SHOOT displayed with A/A gun selected if:</p> <ul style="list-style-type: none"> a. Master Arm selected. b. Radar range tracking. c. Gun rounds remaining. d. Computed miss distance in tolerance. e. Gun angle track. f. Not track memory. <p>4. Displayed with AMRAAM selected if:</p> <ul style="list-style-type: none"> a. AMRAAM missile loaded on aircraft. b. Radar is in TWS. c. Master Arm selected. d. Steering dot inside ASE circle. e. Target inside  R-AERO  R MAX 1, outside R-MIN. f. Target not inside main beam clutter. <p>Meeting all above requirements results in display of a steady SHOOT cue. If target inside R-MAX 2 (R-NE) and outside R-MIN, a flashing shoot is displayed. (Lock/Shoot Light/Shoot Cue Schematic, A1-F18AC-740-500, WP020 00).</p> |
| 18 | Break-X (ØUBRKX) | <p>Displayed when target inside R-MIN for all A/A weapon modes. Display is flashing X (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00).</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 19 | Gun Reticle (ØURETX) | Displayed when gun selected and radar is tracking target. Tick marks and range tab displayed if range from radar valid. Gun R-MAX and/or SW R-MIN displayed if valid. Each tick mark represents 1000 feet of range, providing 12,000 feet range. Range tab indicates linear range clockwise from 0 to 23,000 feet (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 20 | Stadiametric Reticle (ØURETX) | Displayed when gun Disturbed mode selected and radar not providing target range and angle. Diameter of reticle determined by position of cage/uncaged switch on throttle (shown with switch pressed) (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 21 | JAM Code (ØUHDW 1) | See A1-F18AC-FRM-010/(C), WP007 00 for description. |
| 22 | ALR-67 Threat (1-6) (ØU67X (1-6) (ØU67Y (1-6)) | Displayed when a lethal threat emitter has been detected by the countermeasures warning and control system. The alphanumeric character indicates the type threat emitter detected and the placement of the display on the HUD indicates the threat emitters relative bearing to the aircraft. |
| LEGEND | | |
| 1 | Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000). | |
| 2 | Digital Data Computer CONFIG/IDENT Number 87X (A1-F18AC-SCM-000). | |

Figure 3. A/A Mode HUD Symbology (Sheet 10)

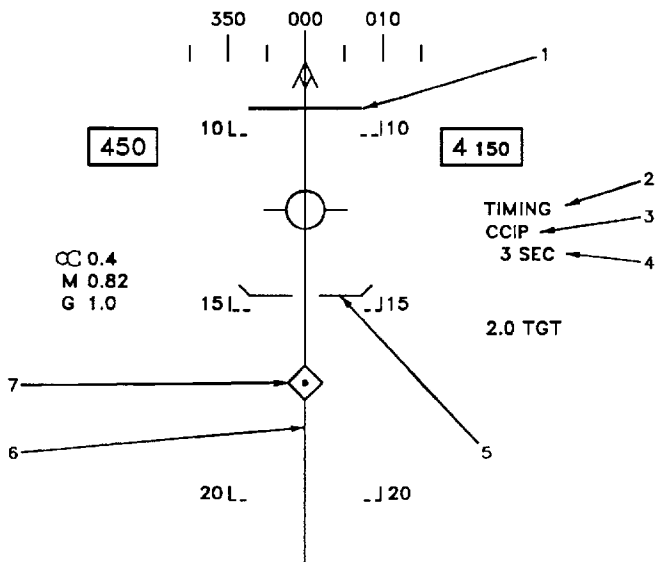


Figure 4. A/G Mode HUD Symbolry (Sheet 1)

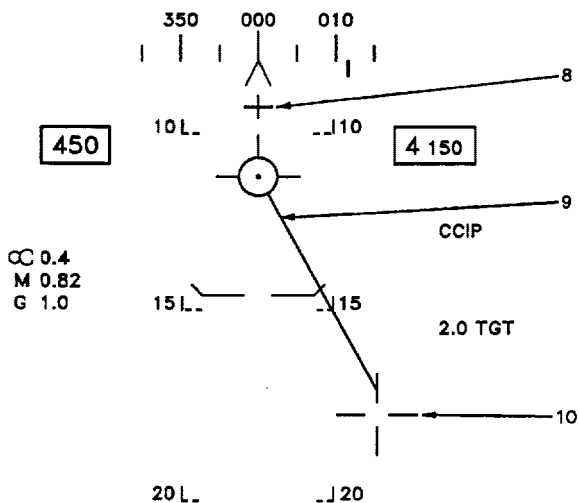


Figure 4. A/G Mode HUD Symbology (Sheet 2)

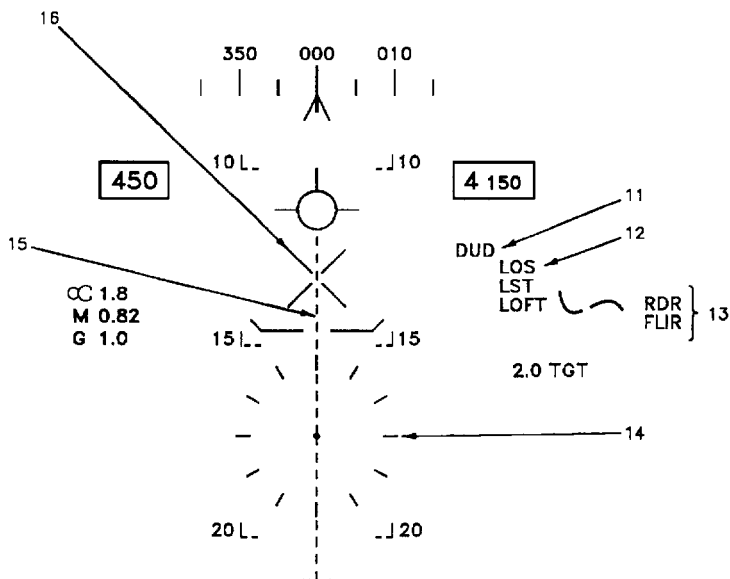


Figure 4. A/G Mode HUD Symbolry (Sheet 3)

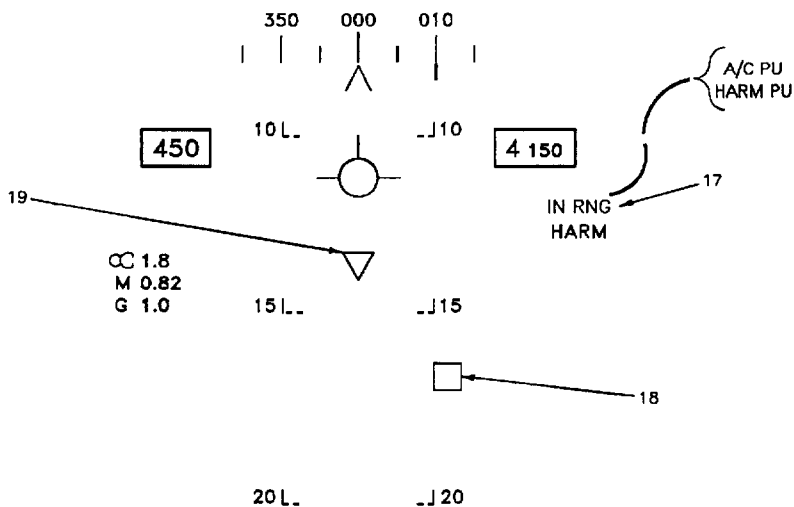


Figure 4. A/G Mode HUD Symbolry (Sheet 4)

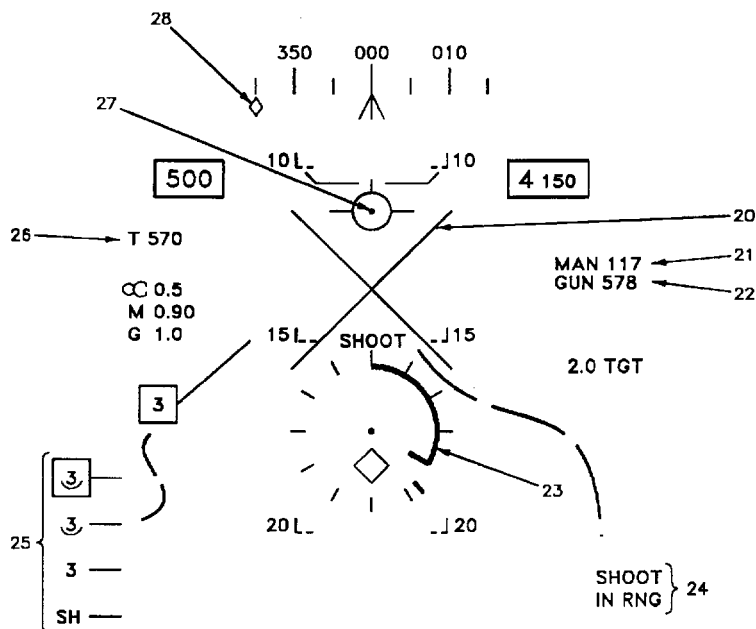


Figure 4. A/G Mode HUD Symbolry (Sheet 5)

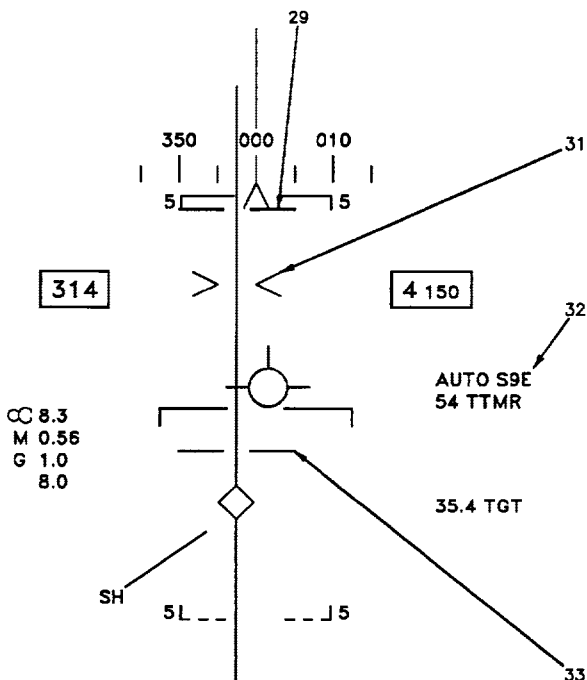


Figure 4. A/G Mode HUD Symbolry (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 1 | Release Cue/ CCIP Time to Go Cue (ØURELX ØURELR) | <p>1. The release cue is enabled when target is designated in Flight Director or Auto mode for conventional weapons BLU-80, Shrike, or mine, AUTO and LOFT modes for nuclear weapons, or HARM Pre-Briefed (PB) mode if velocity vector valid and steering error less than 20°. For low drag conventional weapons or HARM PB mode, the release cue is displayed when in-range equation solved. When a high-drag bomb is selected, the release cue is displayed 5 seconds before weapon release. AR the release point is approached, the cue moves down the azimuth steering line (index 6). When it intersects the velocity vector, automatic weapon release is initiated by the mission computer system (Bomb Avionic Interface Schematic, A1-F18AC-740-600, WP048 00).</p> <p>2. The CCIP time to go cue (reflected cue) is displayed in the CCIP mode when the CCIP cross is outside the HUD field of view. It provides a relative indication of time to go until CCIP cross (index 10) appears on display (Cue travels down impact line (index 9)). When it gets to the bottom of the impact line, it is replaced by CCIP cross (index 10) (Bomb Avionic Interface Schematic, A1-F18AC-740-600, WP048 00).</p> |
| 2 | TIMING (ØUHDW2, ØUH2W2, ØUH3W2) | SLAM TIMING notice is provided when SLAM is the selected weapon and the SMS indicates missile timing is in progress (55 seconds). |
| 3 | A/G Delivery Mode (ØUHDW3, ØUH2W3) | Display is the selected A/G delivery mode (AUTO, CCIP, HARM, MAV, WE, HP, THP, FD, SLAM, TSLM, LOFT, MAN, or WEDL) (See applicable weapon avionic interface schematic, A1-F18AC-740-500). |
| | A/G Not Ready X (ØURDYX) | If not ready indication exists from SMS, a large X is displayed over mode characters (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 4 | Time to Go (ØUHDW4, ØUH3W4) | <p>Indicates time to go until weapon release in seconds for conventional weapons in AUTO or in the HARM PB mode. In nuclear weapon LOFT mode, indicates time to go until pull up, and after pull up has begun, time to go until weapon release provided by mission computer system. If time more than 99 seconds, 99 displayed until within limit (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00).</p> <p>Indicates time to go until weapon release in seconds (XX SEC) for conventional weapons, mines, BLU-80, and nuclear weapons in AUTO or FD mode. In nuclear weapon LOFT mode, indicates time to go to burst (XX BURST) or time to go until pull up (XX PUP) and after pull up has begun, time to go until weapon release (XX REL). If time more than 99 seconds, 99 is displayed until within limit. For BLU-80 and FMU-140 proximity weapons (Rockeye, APAM, and Gator), time-to-go reading also indicates time to pull up. (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00).</p> <p>Indicates time to go until maximum range in seconds (XX TTMR) when Shrike is the selected weapon, target is designated, and delivery mode is manual (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02).</p> |

Figure 4. A/G Mode HUD Symbology (Sheet 7)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 5 | Pullup Cue (ØUPLUX) | Displayed for non-data link, conventional bomb deliveries, if velocity vector valid, in AUTO or CCIP, and for guns and rockets in CCIP or MAN modes. The distance between the pullup cue and the velocity vector provides a relative indication of aircraft safety during weapon delivery. Also displayed when there is not enough time of fall of released weapon to complete fuzing Coincidence of pullup cue and velocity vector result in display of a break-X (index 20) (Bomb Avionic Interface Schematic A1-F18AC-740-500, WP048 00, Rockets Avionic Interface Schematic, A1-F18AC-740-500, WP050 04, or Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 6 | Azimuth Steering Line (ØUALEX) | Azimuth steering line (ASL) displayed after target designation and velocity vector valid in AUTO mode for conventional weapon delivery, LOFT and AUTO modes for nuclear weapon delivery, in HARM PB and SPROT modes, and in Shrike AUTO and MAN modes. Not displayed when command Azimuth angle exceeds 90° except in nuclear LOFT mode. Also not displayed in HARM SP mode. Provides azimuth steering reference (command ground track) with respect to velocity vector (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00, AMAC Avionic Interface Schematic, A1-F18AC-740-500, WP007 00, AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04, or AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |
| 7 | Target Designator (ØUNTDX) | Displayed when targets or offset aimpoint (OAP) are designated by throttle designator control (TDC) in NAV and A/G modes. Provides position of designated target/OAP but is limited and flashed when target/OAP is outside HUD field of view. While TDC is pressed, center one-third of each side of diamond is blank. Dot in center only if TDC priority at HUD. TD is blanked when the bearing to the designated point exceeds 90° (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 8 | Hot Gun Cross (ØUGUNX) | Displayed for A/G hot gun, if not in A/G gun mode and gun is ready. Indicates fixed gun aimpoint at 3,000 feet slant range. Not displayed when Walleye 1, Walleye I ER/DL, Walleye Data Link Pod, Maverick, HARM, or Shrike selected (Air-to-Air Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 9 | Impact Line (ØULNX 1) | The solid impact line is displayed only in the CCIP delivery mode for conventional and nuclear weapons. It extends from the velocity vector to the center of the CCIP cross (index 10). If cross not in field of view, line displayed extending to field of view limit point at which cross will appear (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 10 | Continuously Computed Impact Point (CCIP) Cross (ØUCIPX) | Indicates the impact point of the selected weapon if released immediately. Displayed only in CCIP mode for conventional and nuclear weapons if current weapon impact point (CCIP) is inside HUD field of view. When the CCIP cross is outside the HUD field of view, the CCIP time to go cue (reflected cue) (index 1) is displayed. The reflected cue is displayed along the impact line (index 9) at the same distance above the bottom of the impact line as the CCIP is below the HUD limit point (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 11 | DUD (ØUDUDX) | DUD displayed if not enough time of fall to complete fuzing (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |

Figure 4. A/G Mode HUD Symbology (Sheet 8)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 12 | LOS (ØUHDW 1, ØUH2W 1) | Displayed and flashed when Harpoon (HP or THP) is selected. Flashed for 40 seconds during which straight and level flight on the bunch heading must be maintained. LOS stops flashing when the Harpoon gyro is erect and the weapon is ready for launch (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP060 04). |
| 13 | LST Designation Cue (ØUHDW2, ØUH2W2) | Displayed in NAV or A/G mode if LDT is in track mode. If LDT target is not designated, the LST cue flashes. RDR or FLIR displayed when LDT not tracking. If radar and FLIR are tracking, RDR is displayed. FLIR is flashed when FLIR enters track memory. RDR is flashed when Radar enters track memory. (LDT System Interconnect Schematic, A1-F18AC-743-500, WP004 00) or Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 14 | A/G Reticle (ØURETF, ØUDRET) | Displayed in AUTO and MAN modes for conventional weapons AUTO mode for nuclear weapons and Walleye mode if weapon selected and: <ol style="list-style-type: none"> 1. Not designated. 2. TDC priority to HUD or LDT. 3. Current impact point valid. Symbol provides azimuth steering reference and is limited to HUD field of view. Symbol is flashed when limited (Bomb Avionic Interface Schematic, A1-F18AC-740-600, WP048 00). Displayed in Man mode, Shrike selected and target not designated (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP063 01). |
| 15 | Displayed Impact Line (ØULNX 1) | The dashed impact line is displayed in the AUTO delivery mode for conventional and nuclear weapons if A/G reticle (index 14) enabled and OAP not designated. The line normally extends from the velocity vector to the center of the reticle. Line provides an azimuth steering reference (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 16 | LDT Track Symbol (ØULSTX) | Displayed when laser spot tracker is tracking a target. Flashes when limited at HUD field of view. Displayed at line of sight position of target (LDT System Interconnect Schematic, A1-F18AC-743-500, WP003 00). |
| 17 | IN RNG, A/C PU, HARM PU (ØUHDW 1, ØUH3W 1, ØUH4W 1) | Displayed for Walleye, Maverick, HARM PB mode, and nuclear LOFT mode when target designated and in weapon range (See applicable weapon avionic interface schematic, A1-F18AC-740-500). IN RNG displayed when Walleye, BLU-84 Maverick, and nuclear loft mode weapon is in range. A/C PU is displayed when HARM is selected in the prebriefed mode and prebrief option in aircraft pullup mode. HARM PU is displayed when HARM is selected and the prebriefed pullup mode is HARM. (See applicable weapon avionic interface schematic, A1-F18AC-740-500). |
| 18 | HARM TOO Mode Cue (ØUTØØX, ØUTØØY) | Displayed in HARM TOO delivery mode. Indicates the line of sight of the HARM priority target. Cue is flashed when the priority target is not within the limit of the HUD field of view. (AGM-88 HARM Target of Opportunity (TOO) MODE Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 19 | MAV LOS (ØUMAVX) | Displayed when MAV selected in A/G mode. Indicates maverick line of sight, limited to HUD FOV and flashes when limited (AGM-65E Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |

Figure 4. A/G Mode HUD Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 20 | Break-X (ØUBRKX) | If the pullup cue (index 5) moves up and through the velocity vector during weapon delivery, the aircraft has entered a critical situation with relation to the terrain. At coincidence of the pullup cue and velocity vector, the break-X is displayed and flashed. Not displayed in CCIP mode when designated target is not in HUD field of view or when aircraft is below target altitude. Also displayed and flashed when unsafe weapon fuzing detected (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00 or Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04). |
| 21 | Reticle Depression Numerics (ØUH3W3) | Displayed only in MAN mode. Indicates pilot selected reticle depression angle in milliradians (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00, Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04, or Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 22 | Gun Rounds/Rockets Remaining (ØUWPN5) | Number of gun rounds or rockets remaining displayed when gun or rockets are selected weapon. If no rounds remain, XXX displayed (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00, Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04, or Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 23 | Gun/Rocket Reticle (ØURETX) | The circle and pipper provide steering and range information during A/G gun or rockets mode attacks. Each tick mark represents 1000 feet of slant range to target. The inner bar indicates target range and the outer bar, maximum gun or rockets range. If range to target is more than 12,000 feet, reticle range continues to rotate as shown (16,000 feet) to a maximum of 23,000 feet. If radar range/angle track not available, only circle and pipper are displayed (Gun Avionics Interface Schematic, (A1-F18AC-750-500, WP005 00 or Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04). |
| 24 | Shoot Cue (ØUSHTX) | Steady shoot cue displayed for A/G gun/rocket attack if: <ol style="list-style-type: none"> 1. Master Arm selected. 2. Radar or FLIR angle tracking valid. 3. Gun rounds/rockets remain. 4. Computed miss distance in tolerance. Or when SIM mode is selected. (Lock/Shoot Light/Shoot Cue Display Schematic, A1-F18AC-740-500, WP020 00 or Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04). |
| | IN RNG, A/G Gun/Rocket (ØUIN RX) | Displayed when gun or rockets selected, slant range is inside RMAX, and SHOOT is not displayed or flashed (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04). |
| 25 | ALR-67 Threat (1-6) (ØU67X(1-6) (ØU67Y(1-6)) | Displayed when a lethal threat emitter has been detected by the countermeasures warning and control system. The alphanumeric character indicates the type threat emitter detected and the placement of the display on the HUD indicates the threat emitters relative bearing to the aircraft. When Shrike is the selected weapon and the type of Shrike is compatible with the type of threat detected, the display will alternate between the threat number and SH (Controls, Displays and Audio Schematic, A1-F18AC-760-500, WP015 00). |

Figure 4. A/G Mode HUD Symbology (Sheet 10)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-------------------------------------|---|
| 26 | True Airspeed (ØUTASX) | True Airspeed, indicated by a T, displayed in LOFT, AUTO, CCIP, and MAN delivery modes for nuclear weapons and MAN delivery mode for conventional weapons, rockets and gun (see applicable weapon avionics interface schematic, A1-F18AC-740-500). |
| 27 | TDC Priority Symbol (ØUTDCX, ØWTDX) | When TDC priority is assigned to HUD, a dot is displayed inside the velocity vector (figure 1, index 10) and designator diamond (figure 2, index 16) (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 28 | A/G Command Heading (ØUCMDH) | Displayed in nav or a/g modes only. Heading (figure 1, index 1) must be displayed and a target or offset aimpoint designated to enable this symbol. Provides steering to the designated offset aimpoint or target. |
| 29 | Peak Maximum Release Cue (ØURL1X) | Displayed with Shrike selected, manual delivery mode and aircraft within maximum range of a designated target (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP063 01). |
| | A/C Pullup Release Cue (ØURL1X) | Displayed when HARM is the selected weapon and the target is in range. Indicates range at which HARM may be launched if aircraft pullup maneuver is begun. When A/C PU is selected and weapon release is pressed, weapon will be launched when the pullup maneuver causes the cue to intersect the velocity vector (AGM-88 HARM Avionic Interface Schematic Pre-Briefed (PB) Mode, A1-F18AC-740-500, WP059 04). |
| 30 | | Deleted. |
| 31 | Peak Best Release Cue (ØURTPX) | Displayed with Shrike selected, manual delivery mode and aircraft within optimum range of a designated target. Shrike launch with the velocity vector (figure 1, index 10) coincident with the peak best release cue will yield the best probability of success (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP063 01). |
| | HARM Pullup Release Cue (ØURTPX) | Displayed when HARM is the selected weapon and the target is in range. Indicates range at which HARM may be launched without an aircraft pullup maneuver. If HARM PU is selected and weapon release is pressed, weapon will be launched when the cue intersects the velocity vector. (AGM-88 HARM Avionic Interface Schematic Pre-Briefed (PB) Mode, A1-F18AC-740-500, WP059 04). |
| 32 | Shrike Selected (ØUH3W3, ØUH3W4) | Display is the selected Shrike weapon from the wingform. If the selected Shrike is not the priority station, then SH is displayed. See A/G Stores Symbolology (WP010 00). |
| 33 | Peak Minimum Release Cue (ØURL2X) | Displayed with Shrike selected, manual delivery mode and aircraft minimum range of a designated target (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP063 01). |
| | HARM Minimum Range Cue (ØURL2X) | Displayed when target range is less than 5 miles from minimum range. All HARM range cues (indices 23, 29, and 31) are removed when the minimum range cue intersects the velocity vector. (AGM-83 HARM Avionic Interface Schematic Pre-Briefed (PB) Mode, A1-F18AC-740-500, WP059 04). |

Figure 4. A/G Mode HUD Symbology (Sheet 11)

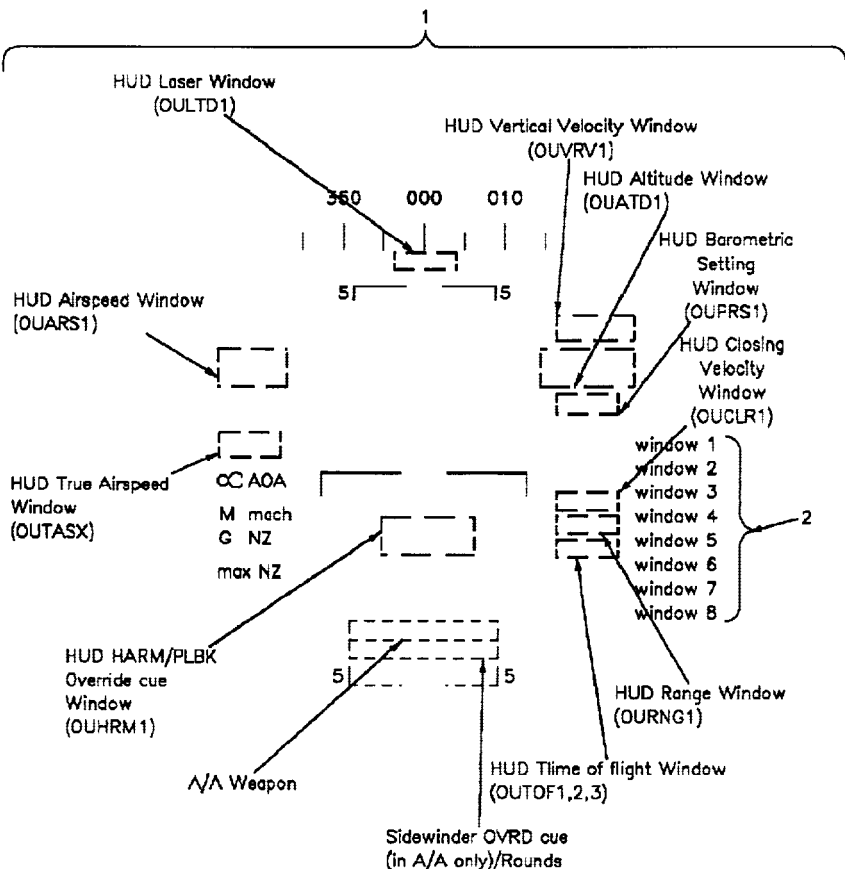


Figure 5. Head-up Display Format (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | Miscellaneous HUD Data Format | Miscellaneous HUD data is formatted and displayed as indicated below. Additional description is located on the referenced figure, this work package. The # symbol represents a displayed numeric. |
| | Laser Window (ØULTD1) | <u>A/G Mode</u> LTD/R (Figure 4, Index 30) LTD (Figure 4, Index 30) L ARM (Figure 4, Index 30) |
| | Vertical Velocity Window (ØUVRV 1) | <u>NAV and A/A mode</u> (-) #### (Figure 2, Index 2) |
| | Barometric Setting Window (ØUPRS1) | <u>All Modes</u> ###.## (Figure 1, Index 4) |
| | Closing Velocity (Range Rate) Window (ØUCLR1) | #### Vc (Figure 3, Index 10) |
| | Range Window (ØURNG1) | <u>NAV and A/A Mode</u> ##.# RNG (Figure 3, Index 12) <u>A/A Mode</u> FLOOD (Figure 3, Index 12) <u>A/G Mode</u> DUD displayed in this location using ØUDUDX. |
| | Time of Flight Window (ØUTØF1-3) | <u>A/A Mode</u> ## TTG (Figure 3, Index 12) ## (Figure 3, Index 11) LOST (Figure 3, Index 12) AACQ (Figure 3, Index 12) WACQ (Figure 3, Index 12) #ACT (Figure 3, Index 12) |
| | Altitude Window (ØUATD1) | <u>All Modes</u> ####R (Figure 1, Index 3) ####B (Figure 1, Index 3) |
| | Sidewinder Override/ Rounds/Weapon Count Window (ØUWPN3, ØUWPN4) | <u>A/A mode</u> -Sidewinder OVRD (Figure 3, Index 6) |

Figure 5. Head-up Display Format (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 2 | | <u>All modes-Gun</u> ### (Figure 3, Index 6) |
| | Airspeed Window (ØUARS1) | #### (Figure 1, Index 16) |
| | True Airspeed Window (ØUTASX) | T### (Figure 4, Index 26) |
| | HARM/PLBK Override Cue Window (ØUHRM1) | PLBK (Figure 1, Index 11) HARM (Figure 1, Index 11) |
| | HUD Window Data Format | HUD window data is formatted and displayed as indicated below. Additional description is located on the referenced figure, this work package. |
| | Window 1 (ØUHDW1) | <u>A/A mode</u> Jam (Figure 3, Index 21) |
| | Window 2 (ØUHDW2) | <u>A/G mode</u> IN RNG (Figure 4, Index 17) A/C PU (Figure 4, Index 17) HARM PU (Figure 4, Index 17) LOS (Figure 4, Index 12) |
| | Window 2 (ØUHDW2) | <u>NAV and A/G mode</u> LST (Figure 4, Index 13) RDR (Figure 4, Index 13) FLIR (Figure 4, Index 13) |
| | | <u>A/G mode</u> AGR TIMING (Figure 4, Index 2) |
| | Window 3 (ØUHDW3) | <u>A/G MODE</u> (Figure 4, Index 3, all) AUTO FD CCIP MAN### LOFT HARM MAV WE WEDL HP THP SLAM TSLM AUTO S## |

Figure 5. Head-up Display Format (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| | Window 4 (ØUHDW4) | <u>A/G MODE</u> GUN### (Figure 4, Index 22) RKT### (Figure 4, Index 22) ##PUP (Figure 4, Index 4) ##REL (Figure 4, Index 4) ##BURST (Figure 4, Index 4) ##LASER (Figure 4, Index 4) ##PUP 1 (Figure 4, Index 4) ##PUP 2 (Figure 4, Index 4) ##TTMR (Figure 4, Index 4) |
| | Window 5 (ØUHDW5) | <u>All Modes</u> DATA (Figure 1, Index 5) TILT (Figure 1, Index 6) DISNGAGE (Figure 1, Index 5) <u>NAV mode</u> 10 SEC (Figure 2, Index 5) |
| | Window 6 (ØUHDW6) | <u>NAV mode</u> CPL P/R (Figure 2, Index 7) CPL HDG (Figure 1, Index 6; Figure 2, Index 7) ACL RDY (Figure 2, Index 7) <u>A/A Mode</u> CPL HDG (Figure 2, Index 7) <u>A/G Mode</u> CPL HDG (Figure 2, Index 7) CPL ASL CPL BANK (Figure 2, Index 7) |
| | Window 7 (ØUHDW7) | <u>All Modes</u> NWS (Figure 1, Index 7) NWS HI (Figure 1, Index 7) ATC (Figure 2, Index 8) |
| | Window 8 (ØUHDW8) | #####M## (Figure 1, Index 8) #####W## (Figure 1, Index 8) #####O## (Figure 1, Index 8) ##### (TACAN ID) (Figure 1, Index 8; Figure 2, Index 9) ##### TGT (Figure 1, Index 8) ## TTMR (Figure 4, Index 4) |

Figure 5. Head-up Display Format (Sheet 4)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

HUD DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292

Reference Material

Fault Reporting Manual (Confidential) A1-F18AC-FRM-010/(C)

Alphabetical Index

| Subject | Page No. |
|---|-----------------|
| A/A Mode HUD Symbology (Figure 3) | 15 |
| A/C PU (Figure 4, Index 16) | 39 |
| A/C Pullup Release Cue (Figure 4, Index 29) | 41 |
| A/G Command Heading (Figure 2, Index 17) | 14 |
| (Figure 4, Index 28) | 40 |
| A/G Delivery Mode (Figure 4, Index 2) | 36 |
| A/G Mode HUD Symbology (Figure 4) | 30 |
| A/G Not Ready X (Figure 4, Index 2) | 36 |
| A/G Reticle (Figure 4, Index 13) | 39 |
| ACFT Waterline (Figure 1, Index 20) | 10 |
| ACL Cues (Figure 2, Index 5) | 12 |
| (Figure 2, Index 7) | 12 |
| AGR Designation Cue (Figure 4, Index 12) | 39 |
| Air to Air Missile Cues (Figure 3, Index 23) | 28 |
| Airspeed (Figure 1, Index 18) | 10 |
| ALT (Figure 4, index 34) | 42 |
| Altitude (Figure 1, Index 3) | 7 |
| AMRAAM Field of View (Figure 3, Index 17) | 27 |
| Angle of Attack Scale (Figure 2, Index 13) | 13 |
| Angle of Attack, Digital (Figure 1, Index 16) | 10 |
| ASE Circle (Figure 3, Index 14) | 25 |
| ATC Cue (Figure 2, Index 8) | 13 |
| Azimuth Steering Line (Figure 4, Index 5) | 37 |
| Bank Angle Command Line (Figure 4, Index 38) | 43 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| Bank Scale (Figure 2, Index 11) | 13 |
| Barometric Setting (Figure 1, Index 4) | 7 |
| BATR (Figure 3, Index 32) | 29 |
| Breakaway-X (Figure 3, Index 20) | 27 |
| (Figure 4, Index 21) | 39 |
| BST Radar Coverage (Figure 3, Index 8) | 22 |
| Climb/Descent Speed (FPAS) (Figure 1, Index 19) | 10 |
| Continuously Computed Impact Point (CCIP) Cross (Figure 4, Index 9) | 38 |
| Coupled Steering Cues (Figure 2, Index 7) | 12 |
| DATA (Figure 1, Index 5) | 8 |
| Data Link Command Heading (Figure 1, Index 2) | 7 |
| (Figure 2, Index 1) | 12 |
| Data Link Discretes/Advisories (Figure 1, Index 5) | 8 |
| Data Link Steering (Figure 2, Index 10) | 13 |
| Delta TOF Cue (Figure 4, Index 41) | 43 |
| Destination Range (Figure 1, Index 8) | 8 |
| (Figure 2, Index 9) | 13 |
| DISPENSE (Figure 1, Index 7) | 8 |
| DISP I/P (Figure 1, Index 7) | 8 |
| DT2 Cue (Figure 3, Index 19) | 27 |
| DUD (Figure 4, Index 10) | 38 |
| Elevation Steering Line (Figure 4, Index 37) | 43 |
| Flightpath/Pitch Ladder (Figure 1, Index 9) | 9 |
| FLIR Designation Cue (Figure 4, Index 12) | 38 |
| FLIR/LDT Status Line (Figure 4, Index 30) | 41 |
| FLOOD (Figure 3, Index 11) | 23 |
| GACQ Radar Coverage (Figure 3, Index 3) | 21 |
| Ghost Velocity Vector (Figure 2, Index 15) | 14 |
| GO STT (Figure 3, Index 18) | 27 |
| Ground Speed Cue (Figure 1, Index 17) | 10 |
| Gun Cross (Figure 3, Index 25) | 28 |
| Gun Funnel (Figure 3, Index 29) | 29 |
| Gun Reticle (Figure 3, Index 21) | 27 |
| (Figure 4, Index 24) | 40 |
| Gun Rounds Remaining (Figure 4, Index 23) | 40 |
| Gun Rounds Window (Figure 5, Index 5) | 45 |
| HAFU Cue (Figure 3, Index 28A) | 29 |
| HARM EOM Indicator (Figure 4, Index 17) | 39 |
| HARM Minimum Range Cue (Figure 4, Index 36) | 43 |
| HARM PU (Figure 4, Index 16) | 39 |
| HARM Pullback Window (Figure 5 Index 3) | 45 |
| HARM Pullup Release Cue (Figure 4, Index 31) | 41 |
| HARM TOO Mode Cue (Figure 4, Index 18) | 39 |
| HARM/PLBK/Override Cue (Figure 1, Index 12) | 9 |
| Heading (Figure 1, Index 1) | 7 |
| Heading Scale Caret (Figure 1, Index 22) | 10 |
| Heading Scale Symbol (Figure 4, Index 20) | 39 |
| Head-Up Display Format (Figure 5) | 44 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Horizon Line (Figure 2, Index 6) | 12 |
| Hot Gun Cross (Figure 4, Index 7) | 37 |
| HUD Window #1 (Figure 5, Index 7) | 45 |
| HUD Window #2 (Figure 5, Index 8) | 45 |
| HUD Window #5 (Figure 5, Index 9) | 45 |
| HUD Data Window #6 (Figure 5, Index 10) | 45 |
| HUD Data Window #7 (Figure 5, Index 11) | 45 |
| HUD Data Window #8 (Figure 5, Index 12) | 45 |
| HUNG Cue (Figure 1, Index 10) | 9 |
| ILS Steering Symbology (Figure 2, Index 4) | 12 |
| Impact Line (Figure 4, Index 8) | 37 |
| (Figure 4, Index 14) | 38 |
| IN RNG (Figure 4, Index 16) | 39 |
| (Figure 4, Index 32) | 42 |
| IN RNG, A/G Gun/Rocket (Figure 4, Index 25) | 40 |
| IN ZONE (Figure 4, Index 32) | 42 |
| Introduction | 5 |
| LDT Status Line (Figure 4, Index 30) | 41 |
| LDT Track Symbol (Figure 2, Index 18) | 14 |
| (Figure 4, Index 15) | 14 |
| LOS (Figure 4, Index 11) | 13 |
| Lower TD Window (Figure 3, Index 18) | 27 |
| (Figure 4, Index 2) | 36 |
| LST Designation Cue (Figure 4, Index 12) | 38 |
| Mach (Figure 1, Index 15) | 10 |
| Master Arm (Figure 3, Index 7) | 22 |
| MAV LOS (Figure 4, Index 19) | 39 |
| Maximum Normal Acceleration (Figure 1, Index 13) | 9 |
| Memory Cue (Figure 3, Index 27) | 29 |
| Missile Time of Flight (Figure 3, Index 12) | 24 |
| Mode Independent HUD Symbology (Figure 1) | 6 |
| MSI Sensor(Figure 3, Index 28) | 29 |
| Multiple Target Cue (Figure 3, Index 22) | 27 |
| NAV Mode HUD Symbology (Figure 2) | 11 |
| Navigation Designation Range (Figure 4, Index 40) | 43 |
| NO DL (Figure 3, Index 23) | 28 |
| NO RDR (Figure 3, Index 23) | 28 |
| Normal Acceleration (Figure 1, Index 14) | 9 |
| Normalized In-Range Display (NIRD) (Figure 3, Index 9) | 22 |
| Nosewheel Steering Cue (Figure 1, Index 7) | 8 |
| OAP Command Heading (Figure 1, Index 2) | 7 |
| Overlay Cue (Figure 3, Index 16) | 26 |
| Peak Best Release Cue (Figure 4, Index 31) | 42 |
| Peak Maximum Release Cue (Figure 4, Index 29) | 41 |
| Peak Minimum Release Cue (Figure 4, Index 36) | 43 |
| Pitch Ladder (Figure 1, Index 9) | 9 |
| Pullup Cue (Figure 4, Index 4) | 37 |
| Range Rate (Figure 3, Index 10) | 23 |
| RDR Designation Cue (Figure 4, Index 12) | 30 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| Recovery Cue (GPWS) (Figure 1, Index 21) | 10 |
| Release Cue (Figure 4, Index 1) | 36 |
| Reticle Depression Numerics (Figure 4, Index 22) | 39 |
| Rockets Remaining (Figure 4, Index 23) | 40 |
| Rockets Reticle (Figure 4, Index 24) | 40 |
| Rounds Remaining, Gun (Figure 4, Index 23) | 40 |
| Selected Weapon Window (Figure 5, Index 4) | 45 |
| Shoot Cue (Figure 3, Index 16) | 26 |
| (Figure 4, Index 25) | 40 |
| Shrike Selected (Figure 4, Index 33) | 42 |
| Sidewinder Seeker Circle (Figure 3, Index 15) | 25 |
| Stadiametric Reticle (Figure 3, Index 26) | 28 |
| Steering Dot (Figure 3, Index 13) | 25 |
| Steering Pointer (Figure 4, Index 39) | 43 |
| TACAN Range and Station Ident Code (Figure 2, Index 9) | 13 |
| TACAN Situation Steering Symbology (Figure 2, Index 3) | 12 |
| Target Designator (Figure 2, Index 16) | 14 |
| (Figure 3, Index 24) | 28 |
| (Figure 4, Index 6) | 37 |
| Target Range (Figure 3, Index 11) | 38 |
| TDC Priority Symbol (Figure 2, Index 12) | 13 |
| (Figure 4, Index 27) | 40 |
| Time Display (Figure 2, Index 14) | 14 |
| Time of Flight Window (Figure 5, Index 3) | 45 |
| Time to Go to Maximum Range (Figure 4, Index 3) | 36 |
| Time to Go, CCIP (Figure 4, Index 1) | 36 |
| True Airspeed (Figure 4, Index 26) | 40 |
| True (T) Heading Cue (Figure 1, Index 22) | 10 |
| Upper TD Window (Figure 5, Index 1) | 45 |
| VACQ Bars (Figure 3, Index 1) | 21 |
| Velocity Vector (Figure 1, Index 11) | 23 |
| Vertical Velocity (Figure 2, Index 2) | 12 |
| WACQ Box (Figure 3, Index 5) | 22 |
| WACQ Grid (Figure 3, Index 4) | 21 |
| Waypoint Situation Steering Symbology (Figure 2, Index 3) | 12 |
| Weapon Field of View (Figure 3, Index 2) | 21 |
| Weapon Type and Weapon Count (Figure 3, Index 6) | 22 |
| WYPT Command Heading (Figure 1, Index 2) | 7 |
| 1000 Ft Center (Figure 3, Index 30) | 29 |
| 2000 Ft Center (Figure 3, Index 31) | 29 |
| 50 POH (Figure 4, index 31) | 41 |
| 90 POH (Figure 4, index 29) | 41 |
| ## TTI (Figure 3, Index 3) | 21 |
| ## TTMR (Figure 4, Index 32) | 42 |
| ####.# LP (Figure 4, Index 35) | 42 |
| ####.# TGT (Figure 4, Index 35) | 42 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------------|-------------|--|-------------------------|----------------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to HUD

displays. The illustrations are not meant to represent typical displays, but to provide general appearance and positioning of the elements which make up HUD displays. The descriptions may contain schematic references which show the development of the display elements.

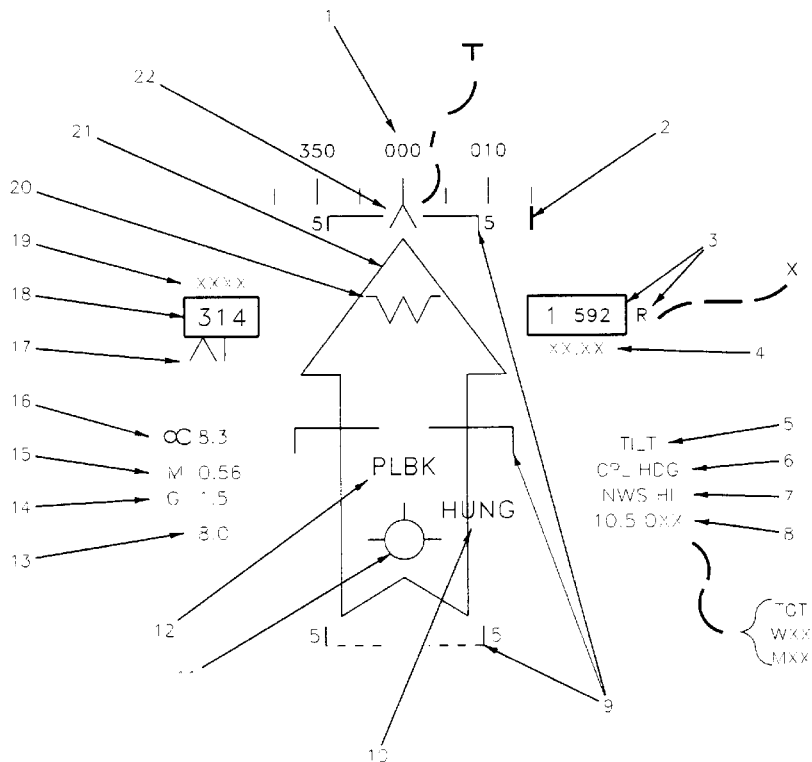


Figure 1. Mode Independent HUD Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-------------------------------------|--|
| 1 | Heading | Magnetic heading displayed when valid and indicated on moving 30° scale. Moving scale provides trend information during turns. Not displayed when HUD REJ 2 selected (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 2 | Data Link/WYPT/O AP Command Heading | <p>1. The DL command heading symbol is displayed in vector mode when vector data is valid, command heading is valid, and heading is displayed (Vector Mode Coupled Heading Functional Schematic, A1-F18AC-630-510/(C), WP012 02).</p> <p>2. The waypoint/offset aimpoint command heading is displayed when WYPT or OAP steering is selected. Provides steering to the selected WYPT/OAP. When a target or OAP has been designated, symbol is replaced by diamond (Bombing/Navigation Functional Schematic, A1-F18AC-730-500, WP019 00).</p> |
| 3 | Altitude | <p>1. With ALT switch in BARD, barometric altitude is displayed in a box when valid (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00).</p> <p>2. With ALT switch in RDR, radar altitude is displayed in a box and identified by an R next to the box. When RDR selected but not valid, barometric altitude is displayed with a flashing B replacing the R. If barometric altitude also not valid, only flashing B is displayed. If the barometric altitude source, error correction is invalid an X will be displayed next to the uncorrected barometric altitude.</p> <p>The thousand and ten thousand digits are larger than the tens, hundreds, and units (XX,xxx). When altitude less than 1000 feet, all digits are the same size (XXX). Box is removed when HUD REJ 1 selected (Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00).</p> |
| 4 | Barometric Setting | The barometric setting displays the value set in the Standby Pressure Altimeter AAU-39A. When the setting is changed, the new value is displayed for 5 seconds. It is also displayed and flashed for 5 seconds when aircraft altitude is below 10,000 feet and airspeed below 300 knots, after having been above both values (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |

Figure 1. Mode Independent HUD Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------|--|
| 5 | Data Link Discretes/Advisories | DL message discretes which appear in this area in vector mode are DATA, TILT, and DISNGAGE (Vector Mode Command Data Functional Schematic, A1-F18AC-630-510/(C), WP012 01). |
| 6 | Data Link Discretes/Advisories | CPL HDG displayed when FCS is coupled to data link vector mode heading command. Flashed for 10 seconds, then removed when couple unsuccessful or uncouple occurs when not commanded (Vector Mode Coupled Heading Functional Schematic, A1-F18AC-630-510/(C), WP012 02). |
| 7 | Nosewheel Steering Cue | NWS is displayed when nosewheel steering is engaged and weight on wheels. When high gain mode selected, NWS HI is displayed (Nosewheel Steering Functional Schematic, A1-F18AC-570-500, WP028 00). |
| | DISPENSE | Displayed to indicate that a threat has been detected and operator action is required to dispense countermeasures. |
| | DISP I/P | Indicates countermeasures dispensing is in progress. |
| 8 | Destination Range | Steering destination range numerics, destination type, and destination number are displayed in NAV and A/G modes. When waypoint steering is selected and the current waypoint has offsets, the range to the OAP, the letter O, and the OAP number are displayed. When waypoint steering is selected and the current waypoint/mark does not have offsets, range numerics, W (waypoint) or M (mark) and the waypoint or mark number are displayed. When a target is designated, target range and TGT are displayed. TACAN steering is indicated by displaying TACAN range and TACAN station identification. Display removed when HUD REJ 2 selected (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |

Figure 1. Mode Independent HUD Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------------|---|
| 9 | Flightpath/ Pitch Ladder | Vertical flightpath angle is indicated by the position of the velocity vector (Index 11) on the flightpath/pitch ladder. The lines represent the horizon and each 5° of pitch between plus and minus 90°. Positive angles are indicated by solid lines above the horizon line. Negative angles are indicated by dashed lines below the horizon line. The outer segments of the lines point toward the horizon. Each line, except for the horizon line, is numbered and the numbers rotate with roll to remain upright with true vertical. During climbs or dives the lines are angled toward the horizon at an angle half that of the flightpath. When the aircraft water line symbol (Index 20) is displayed, the flightpath/pitch ladder is referenced to it instead of the velocity vector. During near vertical dives or climbs, the zenith (represented by a circle) or nadir (represented by a circled X) is displayed for more flightpath information (not shown). Flightpath/pitch ladder lines are blanked when required to prevent obstruction of the heading scale (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 10 | HUNG Cue | Displayed when MCI is in backup (MC2 not operating) and a weapon status is hung. |
| 11 | Velocity Vector | The velocity vector provides reference to the aircraft flightpath. Its position is limited to an 8° radius at the optical center of the HUD. When this limit is exceeded, the velocity vector flashes rapidly. If INS velocity data are not valid, air data computer system velocity is used to compute the vector. This degraded state is indicated by a slow flashing of the velocity vector. Velocity vector is caged in A/A mode (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 12 | HARM/PLBK/ Override Cue | HARM is displayed when HARM aboard, self-protect pullback exists, and HARM ready for launch. When HARM not ready for launch, HARM is displayed, superimposed by a large X. If PLBK override selected, PLBK is displayed (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP057-02). |
| 13 | Maximum Normal Acceleration | Maximum normal acceleration is displayed when a threshold of 4.0 positive G is exceeded. Removed when HUD REJ 1 or REJ 2 selected (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 14 | Normal Acceleration | Normal acceleration symbol (G) and number from INS or electronic flight controls. When not available from either source, only G is displayed. If normal acceleration level less than 4.0 G and maximum normal acceleration not displayed, both symbol G and number are removed with HUD REJ 1 or REJ 2 selected or landing gear down (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |

Figure 1. Mode Independent HUD Symbolology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 15 | Mach | Mach symbol (M) and number from air data computer system. When mach not valid, only M is displayed. Both M and number are removed when HUD REJ 1 or REJ 2 selected or landing gear down (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 16 | Angle of Attack, Digital | True angle of attack from the air data computer system or electronic flight controls is displayed in degrees. Symbol is blanked when data is not valid from either source. Only the α symbol is displayed when velocity vector is within the angle of attack scale (Air Data Computer System Angle of Attack Functional Schematic, A1-F18AC-560-500, WP005 00). |
| 17 | Ground Speed Cue | Displayed to indicate ground speed required to reach time on target. Caret is to the left of line when speed is too slow and to the right if too fast. Full left or right indicates a 30 knot difference between actual and required ground speed (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 18 | Airspeed | Calibrated airspeed from air data computer system displayed when valid. Top of airspeed box is set at aircraft waterline. Removed when HUD REJ 1 selected (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 19 | Climb/Descent Speed (FPAS) | Displays the optimum climb/descent speed computed by the flight performance advisory system (FPAS) when CLIMB pushbutton is selected (boxed) on the FPAS display. |
| 20 | ACFT Waterline | The aircraft waterline symbol is displayed when the velocity vector is not valid, if valid but limited, or when landing gear is down. Provides pitch attitude reference. |
| 21 | Recovery Cue (GPWS) | A steady (not flashing) arrow is displayed when any GPWS warning except CHECK GEAR is set. The warning arrow shows the direction of the horizon and is displayed until the warning condition no longer exists. HUD reject 1 is automatically selected when the arrow is displayed due to display time constraints. |
| 22 | Heading Scale Caret/True (T) Heading Cue | An inverted V pointer is displayed to indicate aircraft magnetic heading (HDG MAG active) on the heading scale. When true heading is displayed (HDG TRUE active), a T is displayed to indicate aircraft heading (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |

Figure 1. Mode Independent HUD Symbology (Sheet 5)

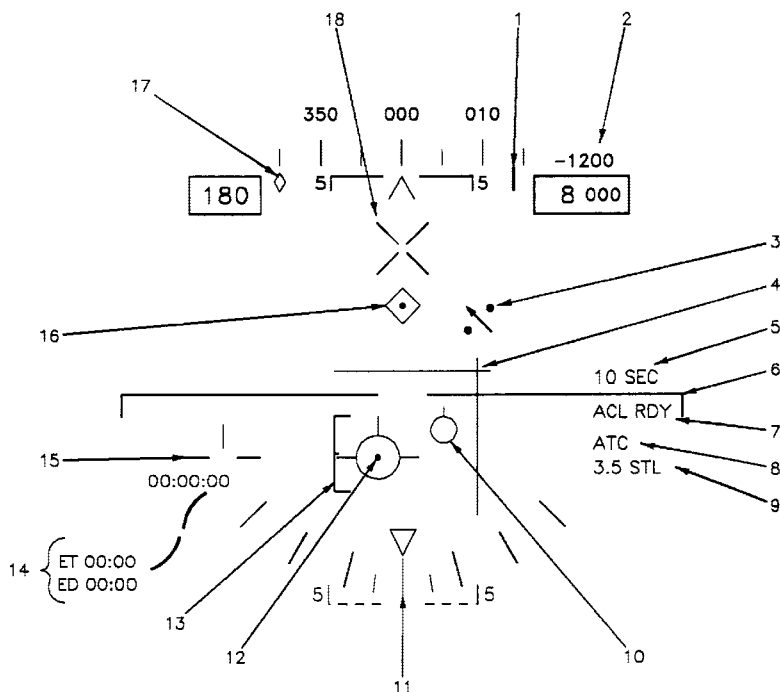


Figure 2. NAV Mode HUD Symbolry (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 1 | Data link Command Heading | The DL command heading symbol is displayed in ACL mode if valid traffic control messages are being received (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-5101(C), WP009 00). |
| 2 | Vertical Velocity | Altitude rate of change in feet per minute is displayed. Descent is indicated by negative values (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 3 | TACAN/Waypoint Situation Steering Symbology | Displayed when TACAN or Waypoint steering is selected if steering data are valid. The arrow indicates ground track. The outer dot indicates full scale deflection of the arrow (8°) and the inner dot indicates half scale deflection (4°) (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 4 | ILS Steering Symbology | If ILS steering is selected, azimuth and/or elevation deviation bars are displayed, if valid. Both are referenced to the velocity vector and provide course steering (Instrument Landing System Functional Schematic, A1-F18AC-630-500, WP004 00). |
| 5 | ACL Cues | ACL cue which appears in this area is 10 SEC (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-5101(C), WP009 00). |
| 6 | Horizon Line | Integral part of flightpath/pitch ladder (Figure 1, Index 9). In NAV mode becomes elongated when landing gear is down (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 7 | ACL Cues Coupled Steering Cues | ACL RDY displayed when ACL RDY discrete received by data link. CPL P/R displayed when FCS is coupled to data link pitch and roll commands. Flashed for 10 seconds and removed when couple unsuccessful or uncouple occurs when not commanded. CPL HDG displayed when FCS coupled to data link heading command. CPL BNK is displayed while the autopilot is coupled to the bank command in FD mode. Flashed for 10 seconds and removed when couple unsuccessful or uncouple occurs when not commanded (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-5101(C), WP009 00). Displays coupled steering mode when MC 1 is operating and coupled steering is selected. Steering modes include: azimuth steering line (ASL), waypoint (WYPT), TACAN (TCN), sequence (SEQ()), and bank (BNK). |

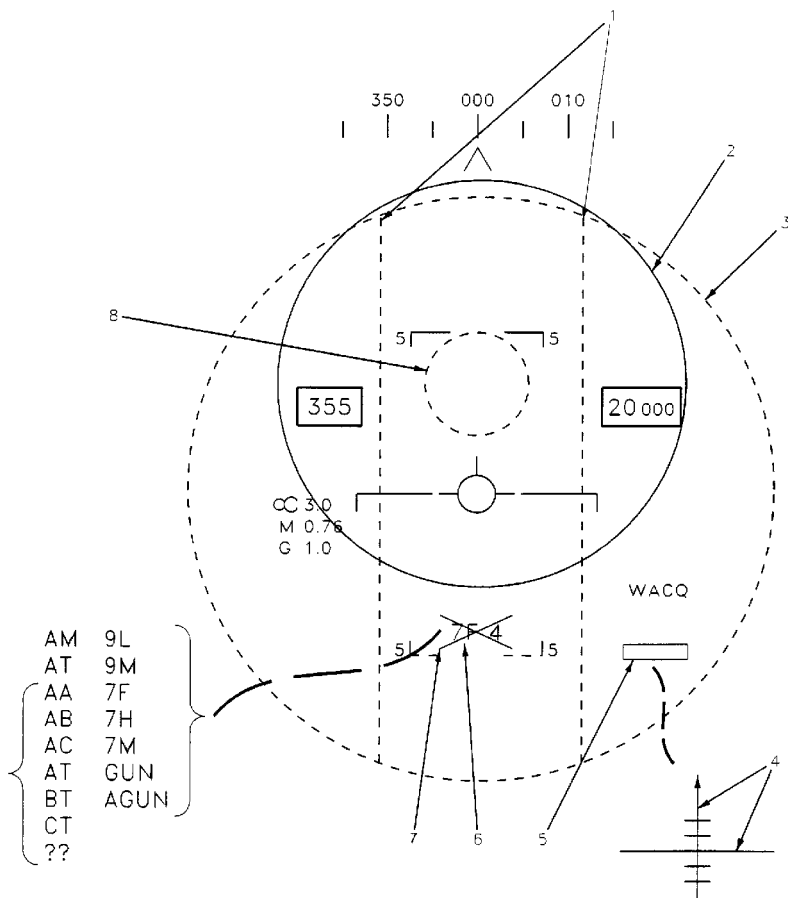
Figure 2. NAV Mode HUD Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 8 | ATC Cue | ATC displayed while automatic throttle control is engaged. Flashed for 10 seconds and removed if ATC fails to engage or if ATC is disengaged for any reason other than actuation of ATC Engage/Disengage switch on throttle (Approach Power Compensation Functional Schematic, A1-F18AC-570-500, WP029 00). |
| 9 | TACAN RANGE and Station Ident. Code Destination Range | If TACAN steering selected and TACAN range valid, range is displayed. If TACAN steering selected and TACAN station ident valid, station ident is displayed. Displayed in all master modes. Both range and station are removed by selecting HUD REJ 2 (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). Steering destination range numerics, destination type, and destination number are displayed in A/G and NAV master modes. When waypoint steering is selected and the current waypoint has offsets, the range to the OAP, the letter O, and the OAP number are displayed. When waypoint steering is selected and the current waypoint/mark does not have offsets, range numerics, W (waypoint) or M (mark) and the waypoint or mark number are displayed. When a target is designated, target range and TGT are displayed. Tacan steering is indicated by displaying TACAN range and TACAN station identifier. The display is removed when HUD REJ 2 is selected. |
| 10 | Data Link Steering Symbol | Displayed during data link system ACL mode if DL steering selected, valid ACL messages are being received, and DL lateral and vertical glide slope data are valid (Data Link Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510(C), WP009 00). |
| 11 | Bank Scale | The bank angle scale and pointer indicate bank angles to $\pm 45^\circ$. The pointer is limited to 47° and flashed when limited. Both scale and pointer are removed by selecting HUD REJ 1 (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 12 | TDC Priority Symbol | If TDC priority is assigned to HUD, a dot is displayed inside the velocity vector (Figure 1, Index 11) and designator diamond (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 13 | Angle of Attack Scale | Scale is displayed in NAV Master Mode when landing gear is down. Center of scale indicates best approach angle with respect to the velocity vector. Scale is limited to the HUD field of view (Air Data Computer System Angle of Attack Functional Schematic, A1-F18AC-560-500, WP005 00). |

Figure 2. NAV Mode HUD Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 14 | Time Display | Countdown (CD) time, elapsed time (ET), or time of day displayed when selected by way of UFC. Time is removed if HUD SYM switch set to REJ2 or aircraft is in landing mode. |
| 15 | Ghost Velocity Vector | In the NAV mode, the velocity vector may be caged to the vertical center line of the HUD display with the CAGE/UNCAGE switch. When caged, a ghost velocity vector is displayed at the true velocity vector position. The ghost vector is blanked when within 2° of the velocity vector, and is flashed when limited. |
| 16 | Target Designator | Displayed when targets or offset aimpoint (OAP) are designated by throttle designator control (TDC) in NAV and A/G modes or when Radar is locked on or has a TWS target in full up mode. Provides position of designated target/OAP but is limited and flashed when target/OAP is outside HUD field of view. While TDC is pressed, center one-third of each side of diamond is blank. Dot in center only if TDC priority at HUD. TD is blanked when the bearing to the designated point exceeds 90° (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 17 | A/G Command Heading | Displayed in NAV or A/G Modes only. Heading (Figure 1, Index 1) must be displayed and a target or offset aimpoint designated to enable this symbol. Provides steering to the designated offset aimpoint or target. |
| 18 | LDT Track Symbol | Displayed when laser spot tracker is tracking a target. Flashes when limited at HUD field of view. Displayed at line of sight position of target (LDT System Interconnect Schematic, A1-F18AC-743-500, WP004 00). |

Figure 2. NAV Mode HUD Symbology (Sheet 4)



07010301

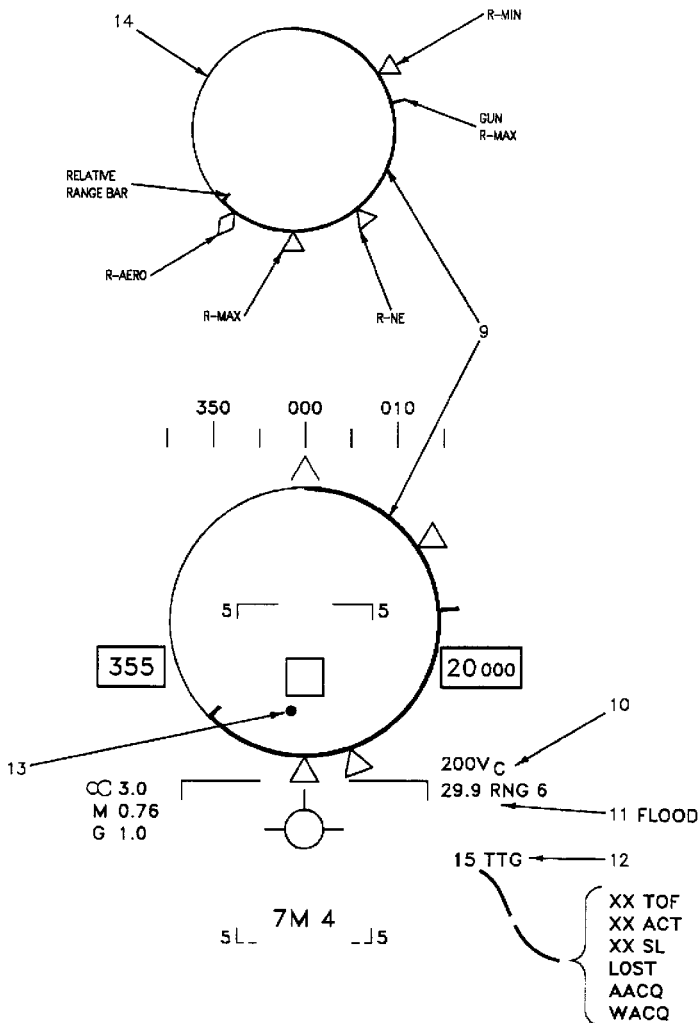


Figure 3. A/A Mode HUD Symbolry (Sheet 2)

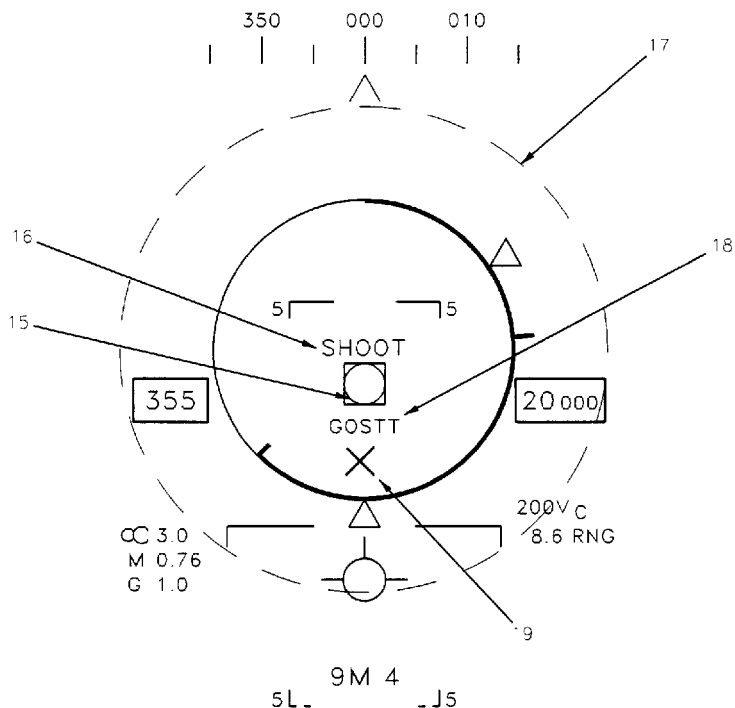


Figure 3. A/A Mode HUD Symbolry (Sheet 3)

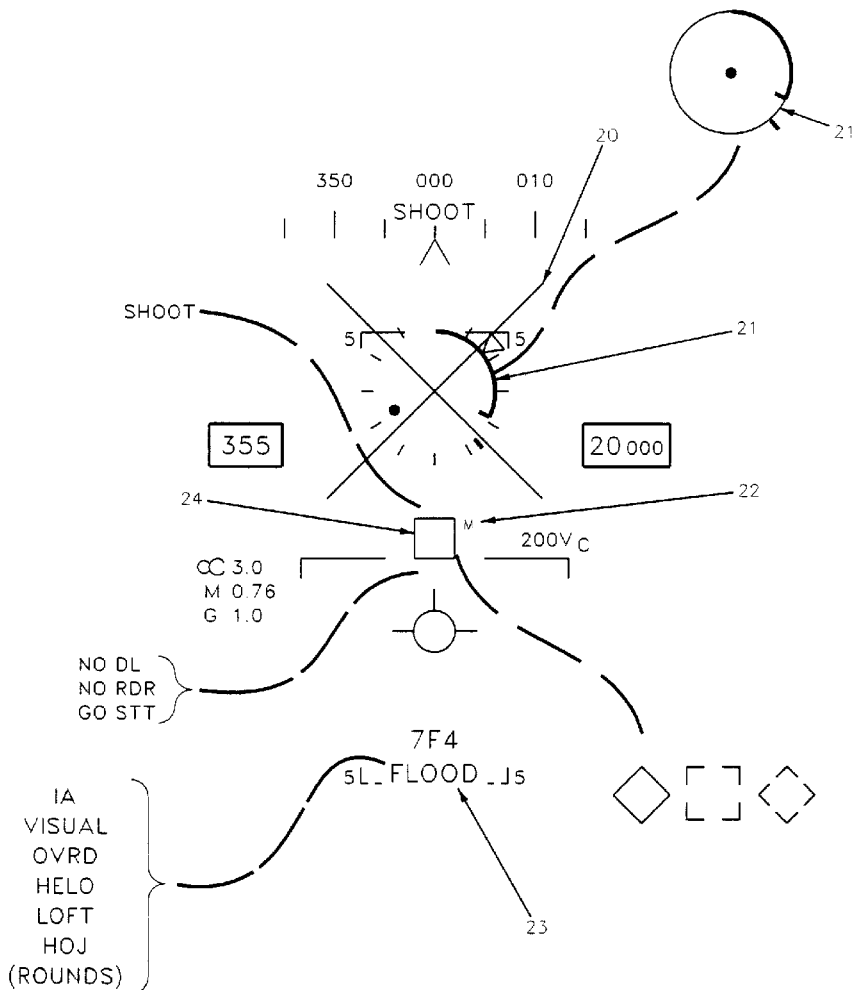


Figure 3. A/A Mode HUD Symbolry (Sheet 4)

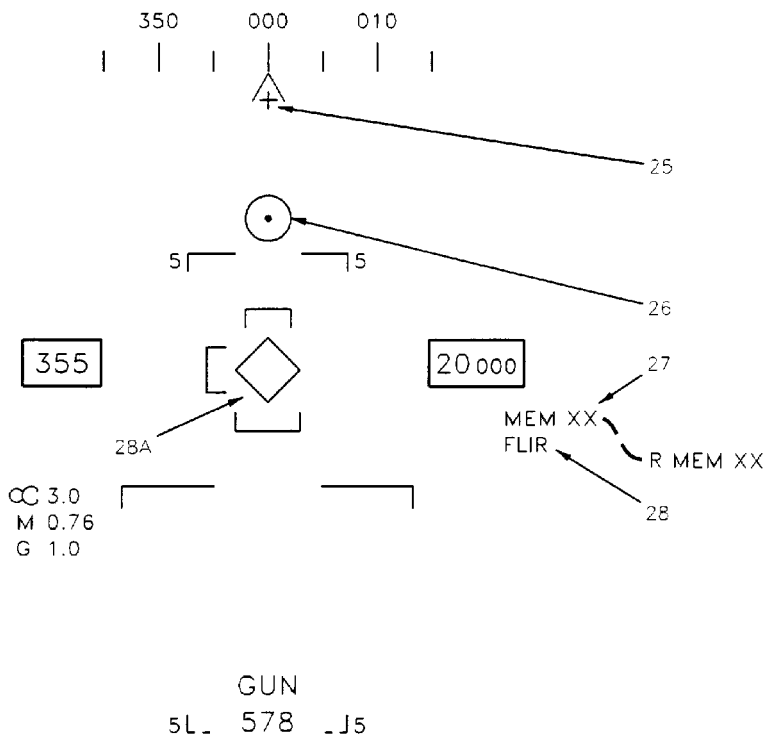


Figure 3. A/A Mode HUD Symbolry (Sheet 5)

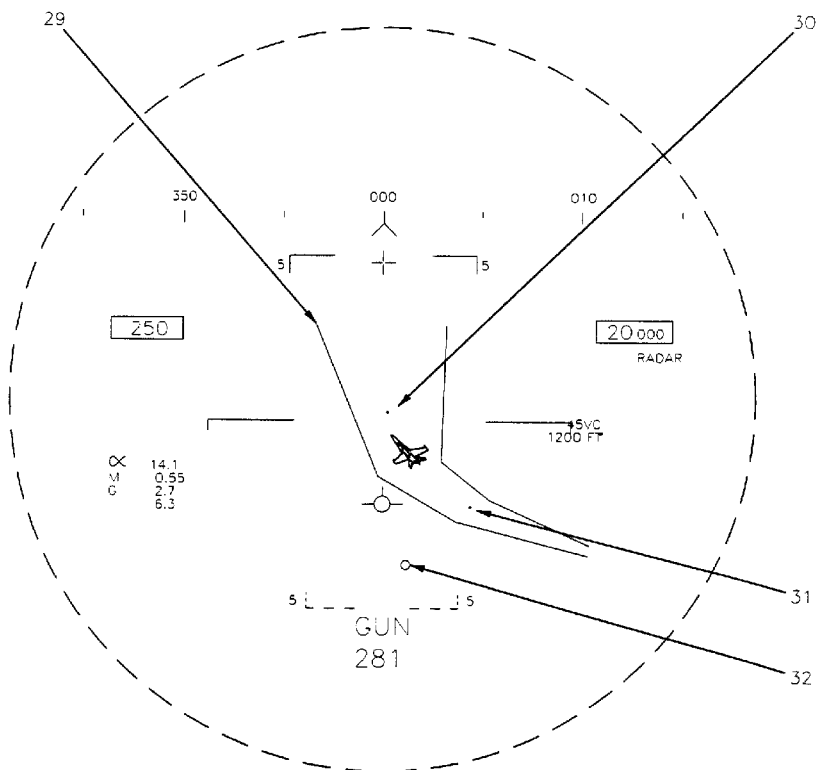


Figure 3. A/A Mode HUD Symbology (Sheet 6)







| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 1 | VACQ Bars | <p>Displayed when radar is in vertical acquisition (VACQ) mode and not in track. Indicates area of radar beam coverage.</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00)</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AH-742-500, WP026 00).</p> |
| 2 | Weapon Field of View | <p>Displayed when the radar is not locked on and the target is not in the launch range envelope. The circle diameter is determined by weapon selected and track status. AIM-7 (Sparrow) field of view (FOV) is a 12 degree solid circle, AIM-120 (AMRAAM) FOV is a 15 degree segmented circle, AIM-9 (Sidewinder) FOV is a 1.5 degree solid circle. GACQ (gun acquisition) FOV is a 20 degree segmented circle, and radar BST (boresight) is a 3.3 degree circle centered on the aircraft waterline.</p> <p>( ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00)</p> <p>( ASE Circle, Steering Dot, RMAX, and R MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |
| 3 | GACQ Radar Coverage | <p>Displayed when radar is in gun acquisition (GACQ) mode and not in track. Indicates the radar scan coverage including the total HUD field of view.</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00)</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AH-742-500, WP026 00).</p> |
| 4 | WACQ Grid | <p>Displayed in the lower right of the HUD when radar mode is WACQ to indicate body referenced radar antenna limits. The center of the grid represents antenna boresight. The horizontal scale is always parallel to the aircraft wings. The scale of the grid indicates $\pm 70^\circ$ in azimuth and elevation. The tick marks on the vertical scale indicate ± 14 and ± 27 degrees. The arrow on the vertical scale indicates up. The WACQ grid is removed and only the WACQ box is displayed in caged WACQ mode.</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 7)



| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------------|---|
| 5 | WACQ Box (Field of View Rectangle) | Displayed with WACQ grid (Index 4) to indicate WACQ scan limits/field of view. When WACQ is caged or uncaged, the box represents approximately 15 degrees in elevation and 60° azimuth. If in uncaged mode, the box may be stewed to any position on the grid. If in caged mode, the WACQ grid horizontal and vertical scales are removed and the box center is fixed on the lower right of the HUD. The box is rotated to stay parallel with the horizon. |
| 6 | Weapon Type and Weapon Count | When AIM-7, AIM-9, or AMRAAM selected, the weapon type (7F, 7M, 7H, 9M, 9L, AM or AT, AA, AB, AC, AT, BT, CT, or ??) and number of available missiles are displayed. When the gun is the selected weapon, GUN or AGUN, is displayed with the number of rounds remaining below it. If no gun rounds are available or gun encoder-decoder fail exists. XXX is displayed beneath GUN. |
| 7 | Master Arm | The large X through the selected weapon type (Index 6) indicates that the master arm switch is in SAFE. When the switch is in ARM and SIM mode is not selected, the X is removed (Master Arm Schematic, A1-F18AC-740-500, WP017 00). |
| 8 | BST Radar Coverage | Displayed when radar is in boresight (BST) acquisition mode and not in track. A 3.3 degree segmented circle centered on aircraft water line indicates area of radar beam coverage ( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00  Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AH-742-500, WP026 00). |

Figure 3. A/A Mode HUD Symbology (Sheet 8)









| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------------|---|
| 9 | Normalized In-Range Display (NIRD) | <p>Displayed when Sidewinder, Sparrow, or AMRAAM (except visual mode) selected, radar is in STT or TWS mode, and target is in range envelope. Display is made up of reference circle with center at aircraft waterline, bar tab displayed inside and touching the circle, and weapon launch envelope range markers on the outside of the circle. Weapon launch envelope range markers are R-min, R-max/R-max 1, R-ne (no escape)/R-max 2, and R-aero. R-min is fixed at the 2:30 o'clock position and R-max/R-max 1 at the 6 o'clock position. R-ne/R-max 2, is maximum launch range against a maneuvering target and floats between R-min and R-max 1. R-aero is the maximum aerodynamic range of the missile. The maximum effective gun range (gun R-max) is indicated by a tab displayed outside and touching the circle (not displayed in TWS mode). The range bar tab is limited to the 12 o'clock position and rotates counterclockwise as range decreases, providing pilot with trend information and range cueing</p> <p>( ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p>( ASE Circle, Steering Dot, RMAX, and R MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |
| 10 | Range Rate | <p>Range rate in knots is displayed when it is available from the radar. Closing velocities (Vc) are displayed as positive numbers and opening velocities are displayed as negative numbers</p> <p>( Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AC-742-500, WP026 00</p> <p>( Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AH-742-500, WP028 00).</p> |
| 11 | Target Range/FLOOD | <p>Absolute target range in nautical miles and tenths of miles displayed when valid. Maximum range displayed is 99.9 nautical miles. Passive ranging uncertainty index is displayed when target range is passive range</p> <p>( Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AC-742-500, WP026 00</p> <p>( Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AH-742-500, WP028 00).</p> <p>Not displayed in A/A gun mode. FLOOD displayed when flood antenna commanded on and not in an auto acquisition mode. FLOOD not displayed when WACQ is selected. When time to go counts to zero and radar still tracking, target, LOST is displayed and flashed for 5 seconds</p> <p>( Flood Selection and Display Schematic, A1-F18AC-742-500, WP025 00</p> <p>( Flood Selection and Display Functional Schematic, A1-F18AH-742-500, WP023 00).</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 9)



| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 12 | Missile Time of Flight | <p>For Sparrow: Displayed when missile is selected, radar is not in search, and target is within R-max1. When launched, XX TTG (time to go) is displayed to indicate (XX in seconds) until target intercept. XX TOF (time of flight) is provided to indicate (XX in seconds) pre-launch time of flight. XX SL (straight line) is provided to indicate (XX in seconds) post-launch time to go using a straight line countdown. LOST is flashed when either the Sparrow missile is launched outside of R-max or the target maneuvers out of R-max after launch. After five seconds, the display reverts to the XX SL countdown. LOST is also flashed for five seconds at the position where the missile symbol was located. When LOST is displayed, the corresponding missile symbol is removed. (For additional description see A1-F18AC-FRM-010(C)).</p> <p>When pilot selectable FLOOD is active, numerics indicate maximum time of flight minus elapsed time.</p> <p>For AMRAAM: During pre-launch, XX TTA (time to active) is displayed to indicate the time (XX in seconds) that an immediately launched AMRAAM becomes active. When R-act (active) is reached before launch (seeker active at launch), the number remains at zero. When launched from greater than R-act, XX ACT (active) is displayed to indicate the time (XX in seconds) the launched AMRAAM becomes active.</p> <p>AMRAAM post-launch XX TTG is displayed to indicate the time to go after post-launch when XX decrements to 00. XX TTG is the computed time remaining until target intercept.</p> <p>When R-act is reached and AMRAAM is not next in sequence, XX TTG appears to indicate the time to go until target intercept for the last non-visual mode AMRAAM launched. When launch is within R-act, TTG is displayed immediately. XX SL is provided to indicate post-launch time to go using a straight line countdown.</p> <p>LOST is flashed when either the AMRAAM missile is launched outside of R-max or the target maneuvers out of R-max after launch. After five seconds, the display reverts to the XX SL countdown. LOST is also flashed for five seconds at the position where the missile symbol was located. When LOST is displayed, the corresponding missile symbol is removed. Also displayed when SIM mode selected</p> <p>( Time-To-Go/Lost and Missile Time-Of-Flight Display Schematic, A1-F18AC-742-500, WP027 00</p> <p>( Time-To-Go/Lost and Missile Time-Of-Flight Display Schematic, A1-F18AH-742-500, WP029 00).</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 10)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| | | Radar Acquisition switch set to Mode |
| | | AACQ displayed when radar is in auto acquisition mode (sensor select switch set to right). WACQ displayed when radar is in wide acquisition mode (sensor select left) |
| | | ( Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00 |
| | | ( Air to Air Acquisition Mode Selection Schematic, A1-F18AH-742-500, WP032 00). |
| 13 | Steering Dot | Displayed when missile selected and radar is in full track or has a TWS target. Flashed when radar antenna is near gimbal limits. Provides pilot with command steering when used with ASE circle. To complete the attack, aircraft must be flown to put steering dot inside ASE circle. Not displayed when Sidewinder missile and radar are tracking different targets |
| | | ( ASE Circle, Steering Dot, R-MAX and R-MIN and Break-X Display Schematic, A1-F18AC-742-500, WP023 00 |
| | | ( ASE Circle, Steering Dot, R MAX and R MIN and Break-X Display Schematic, A1-F18AH-742-500, WP027 00). |
| 14 | ASE Circle | Displayed when the radar is locked on and the target is not in the launch range envelope. Circle is a fixed diameter. ASE circle is flashed when radar-tracked target is approaching radar gimbal limits |
| | | ( ASE Circle, Steering Dot, R-MAX and R-MIN and Break-X Display Schematic, A1-F18AC-742-500, WP023 00 |
| | | ( ASE Circle, Steering Dot, RMAX and R MIN and Break-X Display Schematic, A1-F18AH-742-500, WP027 00). |
| 15 | Sidewinder Seeker Circle | Displayed with Sidewinder selected when Sidewinder is slaved to radar line of sight or tracking a target. Center of circle indicates position of the selected missile seeker head. Symbol is limited to HUD field of view and flashed with shoot cue (Index 16) when limited |
| | | ( ASE Circle, Steering Dot, R-MAX and R-MIN and Break-X Display Schematic, A1-F18AC-742-500, WP023 00 |
| | | ( ASE Circle, Steering Dot, RMAX and R MIN and Break-X Display Schematic, A1-F18AH-742-500, WP027 00). |
| 16 | Shoot Cue | 1. Displayed with Sparrow selected when: <ul style="list-style-type: none"> a. Sparrow missile loaded on aircraft. b. Radar in full track. c. Target inside R-aero and outside R-min. d. Master arm selected. e. Sparrow tuned. f. Radar in high PRF and not in track memory. g. Target within missile seeker range. h. Steering dot inside ASE circle. i. Target not inside main beam clutter. Meeting all above requirements results in display of a steady SHOOT cue. When target inside R-max 2 (R-no escape) and outside R-min, a flashing SHOOT is displayed. |

Figure 3. A/A Mode HUD Symbology (Sheet 11)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| | | <p>2. Flashing SHOOT displayed with Sidewinder selected when:</p> <ul style="list-style-type: none"> a. Sidewinder missile loaded on aircraft. b. Target inside R-max 2 (R- no escape), outside R-min. c. Master arm selected. d. Steering dot inside ASE circle. e. Radar is tracking a target. f. Missile seeker locked on to same target as radar. <p>3. Steady SHOOT displayed with A/A gun selected when:</p> <ul style="list-style-type: none"> a. Master arm selected. b. Radar range tracking. c. Gun rounds remaining. d. Computed miss distance in tolerance. e. Gun angle track. f. Not track memory. <p>4. Displayed with AMRAAM selected when:</p> <ul style="list-style-type: none"> a. AMRAAM missile loaded on aircraft. b. Radar is in TWS. c. Master arm selected. d. Steering dot inside ASE circle. e. Target inside R-aero and outside R-min. f. Target not inside main beam clutter. g. Visual mode is not selected. <p>Meeting all above requirements results in display of a steady SHOOT cue. When target inside R-max 2 (R-no escape) and outside R-min, a flashing shoot is displayed (Lock/Shoot Light/Shoot Cue Display Schematic, A1-F18AC-740-500, WP021 00).</p> <p>Overlay Cue</p> <p>When an A/A overlay controlled store is selected and SHOOT is not displayed, an overlay label may be displayed. The overlay program displays SHOOT as required. See WP023 00 for overlay controlled store.</p> <p>17 AMRAAM Field of View</p> <p>A 15° segmented circle to indicate an L&S target does not exist, AMRAAM is selected, and the selected AMRAAM is in boresight visual launch mode. When an L&S target does exist, AMRAAM is still in boresight visual launch mode unless the CAGE/UNCAGE pushbutton switch is pressed for greater than one second. Normalized in-range display (NIRD) circle is replaced by the 15° segmented circle when AMRAAM boresight visual launch mode is commanded.</p> <p>18 Lower TD Window/ GO STT/ NO RDR/ NO DL</p> <p>GO STT cues the pilot to enter STT mode for Sparrow. NO RDR advises pilot that radar is not a contributor to the L&S trackfile for an AMRAAM CIA (command inertial active) launch. NO DL advises pilot that if an AMRAAM launch is initiated, no data link support is available. GO STT, NO RDR, or NO DL is displayed below the target designator box.</p> <p>19 DT2 Cue</p> <p>Indicates DT2 target LOS when inside the HUD field of view. Not displayed when no DT2 target is identified or when DT2 target is within 1.5° of the L&S target.</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 12)





| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 20 | Break-X | Displayed when target inside R-min for all A/A weapon modes. Display is flashing X ( ASE Circle, Steering Dot, R-MAX and R-MIN and Break-X Display Schematic, A1-F18AC-742-500, WP023 00  ASE Circle, Steering Dot, RMAX and R MIN and Break-X Display Schematic, A1-F18AH-742-500, WP027 00). |
| 21 | Gun Reticle | Displayed when gun selected and radar is tracking target. Tick marks and range tab displayed when radar range valid. Gun R-max and/or SW R-min displayed when valid. Each tick mark represents 1000 feet of range, providing 12,000 feet range. Range tab indicates linear range clockwise from 0 to 23,000 feet. The current range as indicated by the radar is presented as a circular arc about the Gun reticle the length of which represents the target range increasing clockwise about the reticle. When the arc's clockwise length is less than the position of the Gun Maximum Range Cue, the target is within the range of the gun. ( ASE Circle, Steering Dot, R-MAX and R-MIN and Break-X Display Schematic, A1-F18AC-742-500, WP023 00  ASE Circle, Steering Dot, RMAX and R MIN and Break-X Display A1-F18AH-742-500, WP027 00). |
| 22 | Multiple Target Cue | Cues pilot that multiple targets are present near the TD box/diamond LOS. M displayed at upper right corner of TD box/diamond for 10 seconds when L&S is a multiple target, non-DT2 target LOS is within 1.5 degrees of the L&S target LOS, or neither the L&S target LOS nor the non-DT2 target LOS was previously within 1.5 degrees of the TD box/diamond. |
| 23 | Air to Air Missile Cues | When Sidewinder is selected and the cage/uncage switch is pressed and held for more than one second, OVRD is displayed below the weapon type display. OVRD is reset by missile launch, STEP, weapon deselected, or cage/uncage pressed again for less than one second (LOS step). Additional cues for AMRAAM (VISUAL, IA, NO DL, NO RDR) and Sparrow (LOFT, FLOOD, HOJ, HELO) or an OCS label displayed as required. VISUAL is displayed when an L&S target does not exist and AMRAAM is selected for boresight visual launch. IA (inertial active) is displayed when an L&S target exists and the cage/uncage switch is depressed for greater than one second. When IA is displayed, NO DL is displayed below the TD box. NO RDR is displayed for any non-standard AMRAAM launch. LOFT is displayed to indicate loft steering is selected and available. FLOOD is displayed to indicate launch is it FLOOD mode. HELO is displayed to indicate home on helicopter mode is available and selected. HOJ is displayed to indicate home on jam is enabled and radar is in ECOM or STDBY, HOJ and HELO are AIM-7H modes. LOFT and HELD are displayed X'ed out when selected but not available. The modes are prioritized HOJ first, HELO second and FLOOD last. See WP023 00 for OCS labeling (Weapon Select Schematic, A1-F18AC-740-500, WP016 00). |

Figure 3. A/A Mode HUD Symbology (Sheet 13)





| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 24 | Target Designator | <p>Displayed in all A/A weapon modes when radar is angle tracking. Identifies radar line of sight. Symbol flash when radar line of sight is outside HUD field of view and when shoot cue (Index 16) ashes. When radar is in track memory or TWS L&S target track memory or STT track memory, the center of each side of the square is blanked. Target designator is rotated 45° when hostile identification by any means, other than LINK4 is being made. Time in track memory in seconds is displayed above target designator when weapon is in flight. M is displayed when multiple targets are in the target designator line of sight. IA, NO DL, or NO RDR displayed below the TD box. IA and NO DL indicates an AMRAAM launch in the inertial active mode. NO RDR is displayed when radar is not a contributor to L&S when AMRAAM selected ( ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p> ASE Circle, Steering Dot, RMAX, and R MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |
| 25 | Gun Cross | <p>Displayed when A/A gun is selected. Gun cross is centered in azimuth and 2° above aircraft waterline to indicate gun boresight.</p> |
| 26 | Stadiametric Reticle | <p>Displayed when gun disturbed mode selected and radar not providing target range and angle. Diameter of reticle determined by position of cage/uncaged switch on throttle</p> <p> ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p> ASE Circle, Steering Dot, RMAX, and R MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |

Figure 3. A/A Mode HUD Symbology (Sheet 14)

| Index No. | Display Element (Ref Code) | Description |
|---------------|--|---|
| 27 | Memory Cue | L&S target memory is displayed as required. MEM XX or R MEM XX is displayed and the trackfile symbol is flashed when a MSI trackfile is being extrapolated and about to be dropped. XX is time in seconds the trackfile was extrapolated. When the only trackfile correlating to a MSI trackfile is the radar and the radar declares it is in memory (STT, TWS or RWS), the trackfile symbol is flashed and MEM XX is displayed. When the radar target is the L&S target, RMEM is displayed and the TDC box is displayed segmented. |
| 28 | MSI Sensor | MSI contributing sensor(s) are displayed to indicate the sensors contributing to the MSI L&S target or the target under the cursor. Sole contributor names are displayed not abbreviated (RADAR, FLIR, HARM, LINK4, OCS or IFF label) and abbreviated when more than one system is a contributor (R, F, H, L4, or OCS). |
| 28A | HAFU Cue | ID information is displayed for the applicable ID sensor(s). N1/N3 is represented by the upper bracket; N2 by the left bracket; highest priority OCS by the right bracket; CIT/lowest priority OCS/data link by the lower bracket. |
| 29 | Gun Funnel | The funnel mode is displayed if the radar is not tracking the L&S target, or if lock-on is broken. The funnel cue represents a continuous stadiametric reticle providing the capability to achieve a targeting solution at any range within Gun R max. The funnel mode is not retained if target track is regained. |
| 30 | 1,000 foot center | A range of 1,000 feet is represented by the pipper. |
| 31 | 2,000 foot center | A range of 2,000 feet is represented by this pipper. |
| 32 | BATR | The Bullet At Target Range cue is a six mil circle, representing the dispersion of the gun, and is displayed following trigger depression whenever the radar has target range within the computed Gun Rmax. the BATR shows the position of the bullets as they pass the range of the target. The cue can be used real time or during post-flight video review. For each video frame the BATR cue was on the target, approximately five bullets reached the target. |
| LEGEND | | |
| 1 | F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292. | |
| 2 | F/A-18A 162826 THRU 163175 AFTER F/A-18 AFC 253. | |

Figure 3. A/A Mode HUD Symbology (Sheet 15)

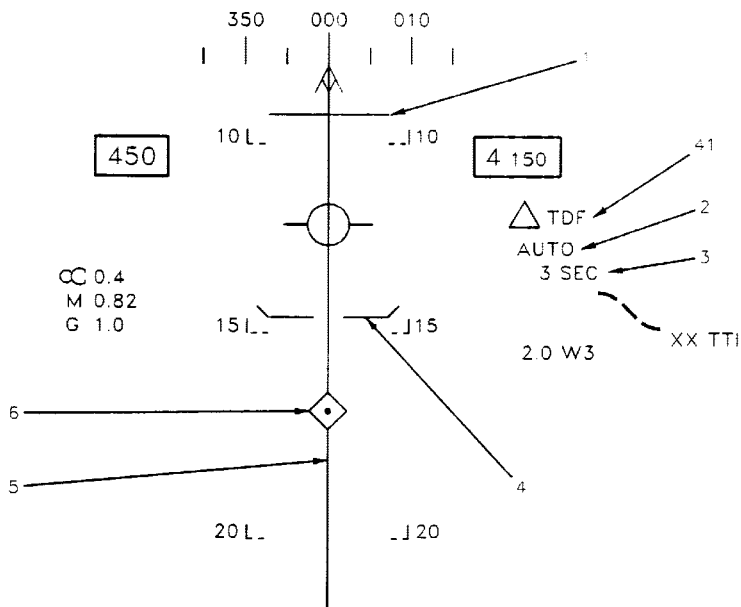


Figure 4. A/G Mode HUD Symbology (Sheet 1)

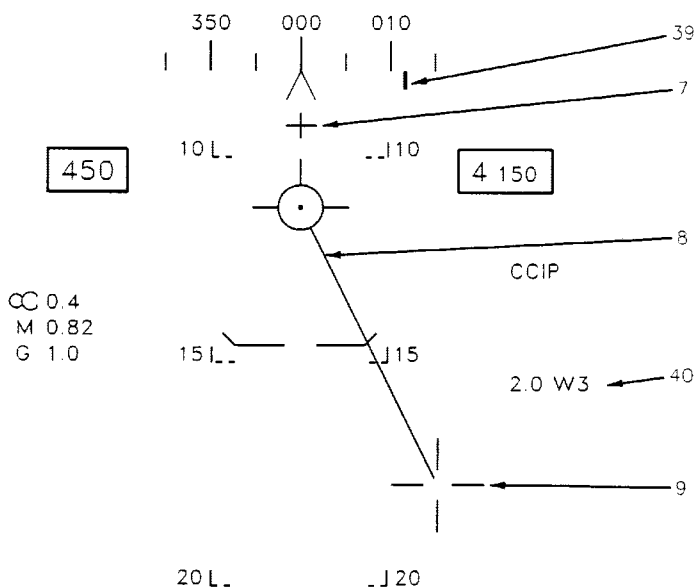


Figure 4. A/G Mode HUD Symbology (Sheet 2)

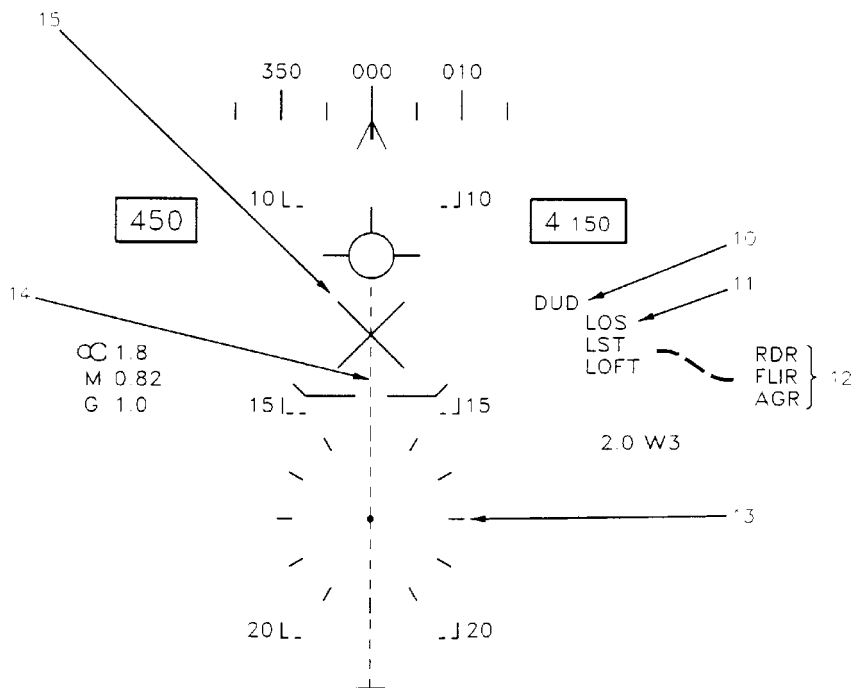


Figure 4. A/G Mode HUD Symboly (Sheet 3)

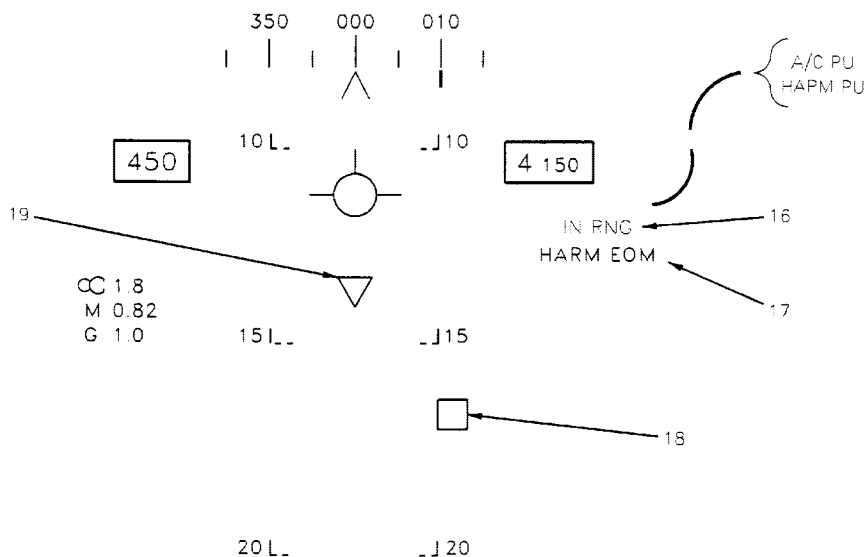


Figure 4. A/G Mode HUD Symbolry (Sheet 4)

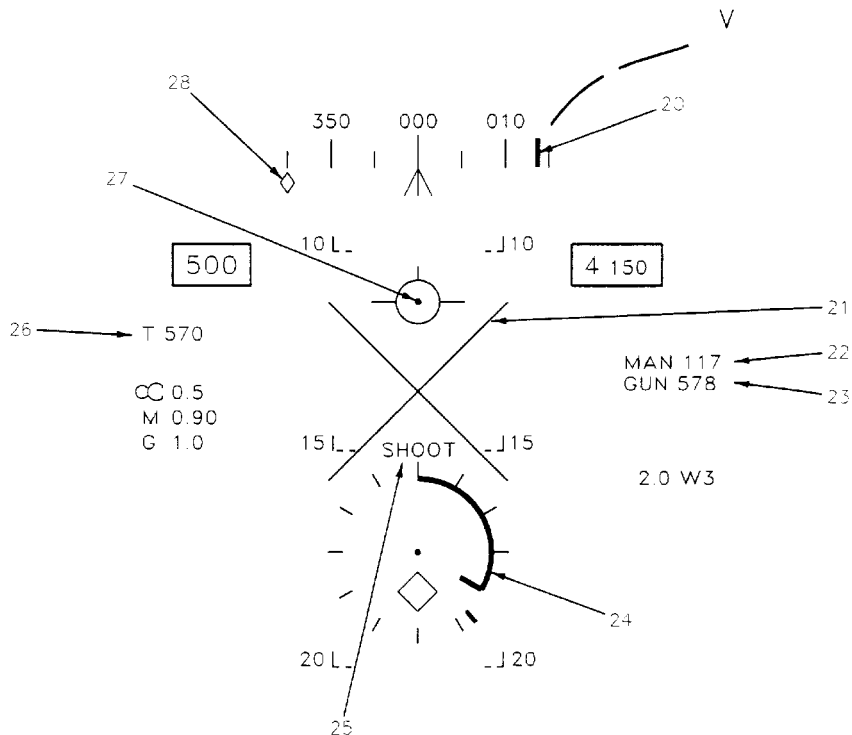


Figure 4. A/G Mode HUD Symbology (Sheet 5)

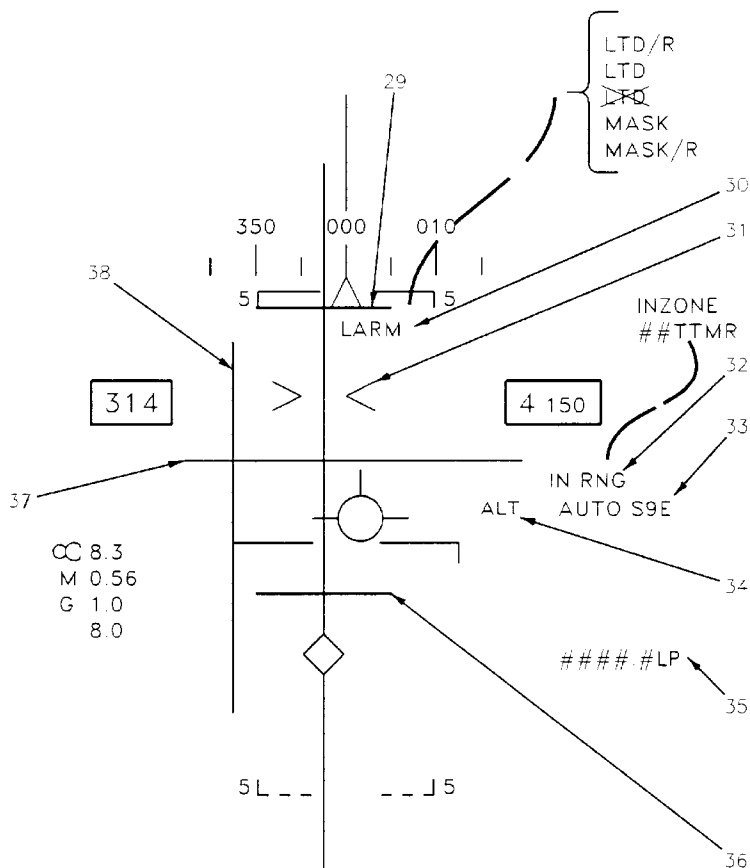


Figure 4. A/G Mode HUD Symbolry (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-------------------------------------|--|
| 1 | Release Cue/ CCIP Time to Go Cue | <p>1. The release cue is enabled when a target is designated in FD (flight director) or AUTO modes, conventional weapons. BLU-80, mine, Shrike AUTO, nuclear weapons LOFT and AUTO modes, and HARM Pre-Briefed (PB) mode when velocity vector valid and steering error less than 20°. For low drag conventional weapons or HARM PB mode, the release cue is displayed when in-range equation solved. When a high-drag bomb is selected, the release cue is displayed 5 seconds before weapon release. As the release point is approached, the cue moves down the azimuth steering line. When it intersects the velocity vector, automatic weapon release is initiated by the mission computer system (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> <p>2. The CCIP time to go cue (reflected cue) is displayed in the CCIP mode when the CCIP cross is outside the HUD field of view. It provides a relative indication of time to go until CCIP cross appears on display (cue travels down impact line). When it gets to the bottom of the impact line, it is replaced by CCIP cross (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> |
| 2 | A/G Delivery Mode | <p>Display is the selected A/G delivery mode. Cues include MAN ###, AUTO, CCIP, HARM, IMAV, MAV, WE, HP, THP, FD, WEDL, and LOFT. With Harpoon selected cues BOL, LOS, or R/BL may be displayed. SLAM selected cues include SLAM, SLAM with an X overlaid, DLSLAM, and TSLAM may be displayed. (See applicable weapon avionic interface schematic, A1-F18AC-740-500).</p> |
| 3 | A/G Not Ready X | <p>When not ready indication exists from SMS, a large X is displayed over mode characters (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> |
| | Time to Go to Maximum Range | <p>Indicates time to go until weapon release in seconds (XX SEC) for conventional weapons, mines. BLU-80, and nuclear weapons in AUTO or FD mode. In nuclear weapon LOFT mode, indicates time to go to burst (XX BURST) or time to go until pull up (XX PUP) and after pull up has begun, time to go until weapon release (XX REL). When time more than 99 seconds, 99 displayed until within limit. For BLU-80 and FMU-140 proximity weapons (Rockeye, APAM, and Gator), time-to-go reading also indicates time to pull up (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> <p>Indicates time to go until maximum range in seconds (XX TTMR) when Shrike is the selected weapon, target is designated, and delivery mode is manual (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP050 00).</p> |
| | XX TTI | <p>Displayed on tactical or simulated release of any A/G ballistic weapon (except GBU-24B/B) in AUTO, FD, or CCIP mode. TTI is based on the time of fall (TOF) of the first weapon released. When the TOF of the weapon is less than 128 seconds but greater than 90 seconds the counter displays 99 until 99 seconds count down is reached. When the TOF is greater than 128 seconds (delta symbol) TOF is displayed.</p> |

Figure 4. A/G Mode HUD Symbology (Sheet 7)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 4 | Pullup Cue | Displayed for non-data link, conventional bomb deliveries when velocity vector valid, in AUTO or CCIP, and for guns and rockets in CCIP or MAN modes. The distance between the pullup cue and the velocity vector provides a relative indication of aircraft safety during weapon delivery. Also displayed when there is not enough time of fall of released weapon to complete fuzing. Coincidence of pullup cue and velocity vector result in display of break-X (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00 Rockets Avionic Interface Schematic, A1-F18AC-740-500, WP077 00 or Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 5 | Azimuth Steering Line | Azimuth steering line (ASL) displayed after target designation and velocity vector valid in AUTO mode for conventional weapon delivery, LOFT and AUTO modes for nuclear weapon delivery, in HARM PB and SP modes, and in Shrike AUTO and MAN modes. Not displayed when command azimuth angle exceeds 90° except in nuclear LOFT mode. Also not displayed in HARM SP mode. Provides azimuth steering reference (command ground track) with respect to velocity vector (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00, AMAC Avionic Interface Schematic, A1-F18AC-740-500, WP007 00, AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00, AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 6 | Target Designator | Displayed when targets or offset aimpoint (OAP) are designated by throttle designator control (TDC) in nav and A/G modes. Provides position of designated target/OAP but is limited and flashed when target/OAP is outside HUD field of view. While TDC is pressed, center one-third of each side of diamond is blank. Dot in center only when TDC priority at HUD. TD is blanked when the bearing to the designated point exceeds 90° (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 7 | Hot Gun Cross | Displayed for A/G hot gun, when not in A/G gun mode and gun is ready. Indicates fixed gun aimpoint at 3.000 feet slant range. Not displayed when Walleye I, Walleye I ER/DL, Walleye Data Link Pod, Maverick, HARM, or Shrike selected (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 8 | Impact Line | The solid impact line is displayed only in the CCIP delivery mode for conventional and nuclear weapons. It extends from the velocity vector to the center of the CCIP cross. When cross not in field of view, line displayed extending to field of view limit point at which the cross appears (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |

Figure 4. A/G Mode HUD Symbology (Sheet 8)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 9 | Continuously Computed Impact Point (CCIP) Cross | Indicates the impact point of the selected weapon if launched immediately. Displayed only in CCIP mode for conventional and nuclear weapons when current weapon impact point is inside HUD field of view. When the CCIP cross is outside the HUD field of view, the CCIP time to go cue (reflected cue) is displayed. The reflected cue is displayed along the impact line at the same distance above the bottom of the impact line as the CCIP is below the HUD limit point (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 10 | DUD | DUD displayed when not enough time of fall to complete fuzing. Displayed when MK-77 is selected and indicated airspeed is less than 300 knots (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 11 | LOS | <p>Displayed and flashed when Harpoon (HP or THP) is selected. Flashed for 40 seconds during which straight and level flight on the launch heading must be maintained. LOS stops flashing when the Harpoon gyro has erected and the weapon is ready for launch (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02).</p> <p>Displayed and flashed to indicate that SLAM LOS mode is selected and SMS reports the missile is timing out. Straight and level flight must be maintained to allow the missile to complete alignment.</p> |
| 12 | LST/FLIR/RDR/AGR Designation Cue | <p>Displayed in nav or A/G master mode when LDT is in track mode. When LDT target is not designated, the LST cue flashes. RDR or FLIR displayed when LDT not tracking. If radar and FLIR are tracking, RDR is displayed. FLIR is flashed when FLIR enters track memory. RDR is flashed when radar enters track memory (LDT System Interconnect Schematic, A1-F18AC-743-500, WP004 00 or Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> <p>AGR is displayed when MC determines radar air to ground ranging is valid AGR/PVU Processing and Display Schematic, A1-F18AC-742-500, WP032 00 AGR/PVU Processing and Display functional Schematic, A1-F18AH-742-500, WP022 00)</p> |
| 13 | A/G Reticle | <p>Displayed in AUTO and MAN modes for conventional weapons. AUTO mode for nuclear weapons, and Walleye mode when weapon selected and: 1. Not designated. 2. TDC priority to HUD or LDT. 3. Current impact point valid. Symbol provides azimuth steering reference and is limited to HUD field of view. Symbol is flashed when limited (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> <p>Displayed in MAN mode. Shrike selected, and target not designated (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP050 00).</p> |
| 14 | Impact Line | The dashed impact line is displayed in the AUTO delivery mode for conventional and nuclear weapons when A/G reticle enabled and OAP not designated. The line normally extends from the velocity vector to the center of the reticle. Line provides an azimuth steering reference (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |

Figure 4. A/G Mode HUD Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------|---|
| 15 | LDT Track Symbol | Displayed when laser spot tracker is tracking a target. Flashed when limited at HUD field of view. Displayed at line of sight position of target (LDT System Interconnect Schematic, A1-F18AC-743-500, WP003 00). |
| 16 | IN RNG, A/C PU, HARM PU | IN RNG displayed when Walleye. BLU-80, Maverick, or nuclear weapon is in range in LOFT mode. A/C PU is displayed when HARM is selected in the pre-briefed mode and pre-brief option is aircraft pullup mode. HARM PU is displayed when HARM is selected and the pre-briefed pullup mode is HARM. (See applicable weapon avionic interface schematic, A1-F18AC-740-500). |
| 17 | HARM EOM Indicator | Displayed when EOM is selected on the HARM TOO or PB mode display. |
| 18 | HARM TOO Mode Cue | Displayed in HARM T00 delivery mode Indicates the line of sight of the HARM priority target. Cue is flashed when the priority target is not within the limit of the HUD field of view (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP057 02). |
| 19 | MAV LOS | Displayed when MAV selected in A/G mode. Indicates Maverick line of sight, limited to HUD FOV and flashes when limited (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP052 00). |
| 20 | Heading Scale Symbol | A tick mark symbol is displayed in SLAM pre-launch conditions to indicate the heading required to fly the pre-launch ground track. Also in post-launch to center the target when FWD antenna is being used and mission conditions are met. An inverted chevron is displayed when post launch conditions are met and the antenna being used is AFT. |
| 21 | Break-X | When the pullup cue moves up and through the velocity vector during weapon delivery, the aircraft has entered a critical situation with relation to the terrain. At coincidence of the pullup cue and velocity vector, the break-X is displayed and flashed. Not displayed in CCIP mode when designated target is not in HUD field of view or when aircraft is below target altitude. Also displayed and flashed when unsafe weapon wing detected (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00 or Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00). |
| 22 | Reticle Depression Numerics | Displayed only in MAN mode. Indicates pilot selected reticle depression angle in milliradians (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00, Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00, or Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |

Figure 4. A/G Mode HUD Symbology (Sheet 10)

| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------|--|
| 23 | Gun Rounds/Rockets Remaining | Number of gun rounds or rockets remaining displayed when gun or rockets are selected weapon. When no rounds remain, XXX is displayed (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00, Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00, or Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 24 | Gun/Rocket Reticle | The circle and pipper provide steering and range information during A/G gun or rockets mode attacks. Each tick mark represents 1000 feet of slant range to target. The inner bar indicates target range. The outer bar indicates maximum gun or rockets range. When range to target is more than 12,000 feet, reticle range continues to rotate as shown (16,000 feet) to a maximum of 23,000 feet. When radar range/angle track not available, only circle and pipper are displayed (Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00 or Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00). |
| 25 | Shoot Cue | Steady shoot cue displayed when A/G gun or rockets selected and either SIM mode is selected or when: <ol style="list-style-type: none"> 1. master arm selected 2. radar or FLIR angle tracking valid 3. gun rounds/rockets remain 4. computed miss distance within tolerance. (Lock/Shoot Light Shoot Cue Display Schematic, A1-F18AC-740-500, WP038 00 or Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00). |
| | IN RNG, A/G Gun/Rocket | Displayed when gun or rockets selected, slant range is inside RMAX, and SHOOT is not displayed or flashed (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00). |
| 26 | True Airspeed | True airspeed, indicated by a T, displayed in LOFT, AUTO, CCIP, and MAN delivery modes for nuclear weapons and MAN delivery mode for conventional weapons, rockets and gun (see applicable weapon avionic interface schematic, A1-F18AC-740-500). |
| 27 | TDC Priority | When TDC priority is assigned to HUD, a dot is displayed inside the velocity vector and designator diamond (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 28 | A/G Command Heading | Displayed in nav or A/G modes only. Heading must be displayed and a target or offset aimpoint designated to enable this symbol. Provides steering to the designated offset aimpoint or target. |

Figure 4. A/G Mode HUD Symbology (Sheet 11)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------|---|
| 29 | Peak Maximum Release Cue | Displayed with Shrike selected, manual delivery mode, and aircraft within maximum range of a designated target (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP050 00). |
| | A/C Pullup Release Cue | Displayed when HARM is the selected weapon and the target is in range. Indicates range at which HARM may be launched when aircraft pullup maneuver is begun. When A/C PU is selected and weapon release is pressed, weapon is launched when the pullup maneuver causes the cue to intersect the velocity vector (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00). |
| 30 | 90 POH Cue (Probability of Hit) | Indicates that 90 probability of hit HARM/EOM range has been selected on the HARM TOO or PB mode. |
| | FLIR/LTD Status Line | Laser ARM/firing status displayed: L ARM - When LTD/R is armed and no MC fire command or no laser inhibit exists. LTD/R - Displayed 150% size when laser is firing and laser is determining valid/reasonable range (LTD/R is flashed). LTD - When laser is firing and laser is not determining valid/reasonable range (LTD is flashed). LTD with superimposed X - When laser is inhibited by the MC or FLIR. MASK (flashing) - When laser is firing and computed to be nearing the inhibit envelope. MASK (steady) - Laser is inhibited. MASK/R - When the laser is firing, reasonable range data is being developed, and the laser is nearing the inhibit area. |
| 31 | Peak Best Release Cue | Displayed with Shrike selected, manual delivery mode and aircraft within optimum range of a designated target. Shrike launch with the velocity vector coincident with the peak best release cue that yields the best probability of success (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP050 00). |
| | HARM Pullup Release Cue | Displayed when HARM is the selected weapon and the target is in range. Indicates range at which HARM may be launched without an aircraft pullup maneuver. When HARM P/U is selected and weapon release is pressed, weapon is launched when the cue intersects the velocity vector (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00). |
| | 50 POH Cue (Probability of Hit) | Indicates that 50 probability of hit HARM/EOM range has been selected on the HARM TOO or PB mode. |

Figure 4. A/G Mode HUD Symbology (Sheet 12)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 32 | IN RNG/ ## TTMR IN ZONE/ ## TTMR (HARM) IN ZONE IN RNG ## TTMR | <p>## TTMR is displayed when the selected weapon is Laser Maverick, IR Maverick, Walleye, or Walleye DL and a designation exists. The designated point must be plus or minus 90 degrees from heading and time to IN RNG is greater than zero. When time to IN RNG is equal to or less than zero, IN RNG is displayed. When IR Maverick is selected and the aircraft is below target altitude, TTMR and IN RNG cues are not displayed.</p> <p>IN ZONE is displayed when Harpoon or SLAM selected to indicate:</p> <ol style="list-style-type: none"> 1. all launch criteria are met 2. type of missile selected 3. launch mode of R/BL, BOL, or LOS selected 4. ## TTMR - time to reach maximum launch range 5. range to designated target. <p>BOL mode does not required a target designation.</p> <p>IN RNG is displayed when the range to the target is less than or equal to the HARM/EOM maximum range if the aircraft were to execute a 45 degree pull-up (5g maneuver).</p> <p>IN ZONE when the target is at the HARM/EOM maximum range for the current flightpath.</p> <p>## TTMR is the PB/EOM or TOO/EOM time to maximum range up to 99 seconds. TTMR is removed when the timer has expired and the target is IN RNG.</p> |
| 33 | Shrike Selected | Display is the selected Shrike weapon from the wingform. When the selected Shrike is not the priority station, then SH is displayed. See A/G Stores Symbology (WP010 00). |
| 34 | ALT | Displayed when the velocity vector is below the pullup cue and the Harpoon flight option is HIGH. ALT cue is a warning that when launched, the computed missile flight-path is predicted to intersect the aircraft flightpath. |
| 35 | #### LP/ #### TGT | <p>Displays the distance to the launch point or the distance to the target. LP is displayed when SLAM mode is SEL, a pre-planned mission is selected, no designation exists, and no steering mode other than undesignated FD is engaged.</p> <p>TGT is displayed when data link is onboard. DLMODE is L(x), no weapon other than a SLAM is selected, and no steering mode other than weapon data link is engaged.</p> |

Figure 4. A/G Mode HUD Symbology (Sheet 13)

| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------|---|
| 36 | Peak Minimum Release Cue | Displayed with Shrike selected, manual delivery mode, and aircraft minimum range of a designated target (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP050 00). |
| | HARM Minimum Range Cue | Displayed when target range is less than 5 miles from minimum range. All HARM range cues are removed when the minimum range cue intersects the velocity vector (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00). |
| 37 | Elevation Steering Line | Indicates that aircraft altitude needs to be increased or decreased to place the aircraft at either the desired SLAM launch altitude or data link control altitude based on mission selected and pre-launch or post-launch status. |
| 38 | Bank Angle Command Line | Indicates the steering required to place the aircraft at either the launch point or on the control segment line for SLAM launch and control. |
| 39 | Steering Pointer | A steering pointer is presented on the heading scale when A/G mode is activated, waypoint (WYPT) or offset aimpoint (OAP) steering is selected on the HSI, and a valid WYPT/OAP is selected. |
| 40 | Navigation Designation Range | Whenever the WYPT/OAP steering mode is selected, navigation range to the selected waypoint or OAP, to tenths of a nautical mile, is displayed. W ## or O ## is displayed next to the range display indicating the type of navigation steering point along with the WYPT/OAP number. When an OAP is designated, the O ## on the HUD does riot change. However, when an A/G target is designated, TGT is displayed in place of W ## or O ## on the HUD, next to the target range. |
| 41 | Delta TOF cue | The Delta Time Of Fall cue will be displayed if the selected weapon time-of-fall exceeds 128 seconds. This cue indicates that the MC is unable to accurately determine the weapon impact point due to the time-of-fall variable being unable to become any larger. The operator should modify the current delivery profile until the cue is removed. Weapon delivery is not inhibited when this cue is present, however, weapon accuracy is not assured. |

Figure 4. A/G Mode HUD Symbology (Sheet 14)

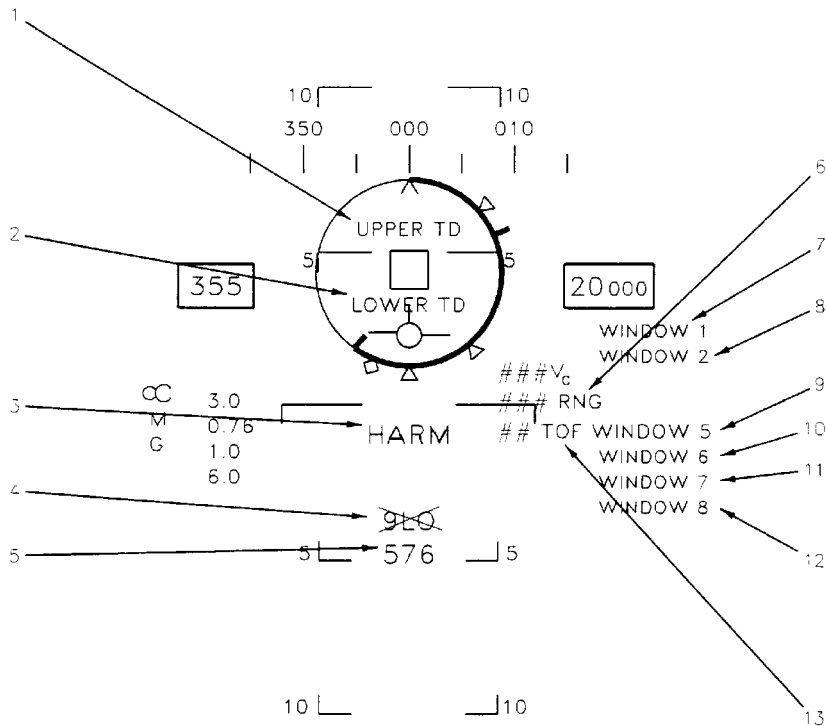


Figure 5. Head-up Display Format (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | Upper TD Window | An eight character window that moves with the TD box and can display the SHOOT cue. |
| 2 | Lower TD Window | An eight character window that moves with the TD box and can display the NO DL or NO RDR cues for AMRAAM, or the GOSST cue for Sparrow. |
| 3 | HARM Pullback Window | This window displays the HARM Self-Protect Pullback cues. These cues are displayed at 200 percent size. |
| 4 | Selected Weapon Window | This window displays the selected weapon and, for missiles, the available weapon count. In A/A master mode, there is always a weapon selected. If A/A master mode is entered via the master mode button, AIM-9L is the default weapon selected. This information is displayed at 200 percent size. |
| 5 | Gun Rounds Window | This window displays the available gun rounds when the Gun is selected or the operation g mode of the weapon when a missile is selected. This information is displayed at 200 percent size. |
| 6 | Range Window | This window displays target range when available. Also, the FLOOD cue when AIM-7 is the selected weapon and a FLOOD launch has occurred. |
| 7 | HUD Window # 1 | This window can display MSI trackfile memory cues. |
| 8 | HUD Window #2 | This window displays the sensors currently selected as MSI contributors. |
| 9 | HUD Window #5 | This window can display cues for Automatic Carrier Landing (ACL) mode. |
| 10 | HUD Window #6 | This window can display cues for Autopilot modes, Automatic Carrier Landing (ACL), or data link. |
| 11 | HUD Window #7 | This window can display cues for Nose Wheel Steering, Automatic Throttle Control (ATC), or countermeasures dispensing. |
| 12 | HUD Window #8 | This window can display range to a navigation steering point. |
| 13 | Time of Flight Window | This window can display Time of Flight cues for Sparrow or AMRAAM or Acquisition mode cues. |

Figure 5. Head-up Display Format (Sheet 2)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

RADAR DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B

Reference Material

Fault Reporting Manual (Confidential) A1-F18AC-FRM -010/(C)

Alphabetical Index

| Subject | Page No. |
|--|----------|
| A/A Mode Radar Symbology (Figure 1) | 5 |
| A/G Mode (Figure 2, Index 1) | 23 |
| A/G Mode Radar Symbology (Figure 2) | 21 |
| AACQ (Figure 1, Index 49) | 17 |
| Acceleration Vector (Figure 1, Index 41) | 16 |
| Acquisition Cursor (Figure 1, Index 7) | 10 |
| (Figure 2, Index 11) | 26 |
| ACTIVE (Figure 1, Index 5) | 9 |
| (Figure 2, Index 8) | 26 |
| AGC/Threshold Level (Figure 1, Index 23) | 13 |
| Aging, Target (Figure 1, Index 5) | 9 |
| AGR (Figure 2, Index 1) | 23 |
| AIR (Figure 2, Index 38) | 29 |
| Airspeed (Figure 1, Index 33) | 15 |
| (Figure 2, Index 27) | 28 |
| Altitude (Figure 1, Index 16) | 12 |
| (Figure 2, Index 18) | 27 |
| Altitude, Differential (Figure 1, Index 47) | 17 |
| Angle Off Track (Figure 2, Index 5) | 25 |
| Angle Pointer, Aspect (Figure 1, Index 48) | 17 |
| Antenna Elevation, Optimum (Figure 2, Index 37) | 29 |
| Antenna Elevation Scale and Caret (Figure 2, Index 31) | 28 |
| ASE Circle (Figure 1, Index 44) | 17 |
| Aspect Angle Pointer (Figure 1, Index 48) | 17 |
| AUTO (Figure 1, Index 18) | 12 |
| AUTO/BIAS/MAN Scan Center (Figure 1, Index 36) | 15 |
| Azimuth Grid (Figure 1, Index 17) | 12 |
| Azimuth Scan (Figure 1, Index 42) | 16 |
| B-Sweep (Figure 1, Index 27) | 14 |
| BIAS (Figure 1, Index 36) | 15 |
| Break-X (Figure 1, Index 65) | 19 |
| (Figure 2, Index 39) | 29 |
| CHAN (Figure 1, Index 18) | 12 |
| (Figure 2, Index 21) | 27 |
| Channel Fail X, RF (Figure 1, Index 31) | 14 |
| Channel, RF (Figure 1, Index 30) | 14 |
| (Figure 2, Index 2) | 24 |
| Closing Velocity (Figure 1, Index 11) | 11 |
| Cursor, Acquisition (Figure 1, Index 7) | 10 |
| (Figure 2, Index 11) | 26 |
| Cursor, In-Video (Figure 2, Index 13) | 26 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| DCLTR (Figure 1, Index 17) | 12 |
| (Figure 2, Index 19) | 27 |
| Differential Altitude (Figure 1, Index 47) | 17 |
| DT2 (Figure 1, Index 39) | 16 |
| ECCM (Figure 1, Index 66) | 19 |
| ELBAR (Figure 1, Index 1) | 9 |
| Elevation Scale and Caret (Figure 1, Index 25) | 14 |
| EMER (Figure 1, Index 32) | 14 |
| ERASE (Figure 1, Index 3) | 9 |
| EXP (Figure 1, Index 21) | 13 |
| EXP1 Indicator (Figure 2, Index 24) | 28 |
| EXP1/INTL (Figure 2, Index 3) | 24 |
| EXP2 (Figure 2, Index 4) | 27 |
| EXP2 Indicator (Figure 2, Index 20) | 25 |
| EXP3 (Figure 2, Index 6) | 25 |
| EXP3 Indicator (Figure 2, Index 28) | 28 |
| Fail X, Channel, RF (Figure 1, Index 31) | 14 |
| Fail X, Mode (Figure 1, Index 29) | 14 |
| Fail X, RF Channel (Figure 1, Index 31) | 14 |
| FAN (Figure 2, Index 7) | 26 |
| FAST (Figure 2, Index 25) | 28 |
| Filed Target (Figure 1, Index 33) | 15 |
| FLIR Autotrack Target (Figure 1, Index 11) | 11 |
| FLOOD (Figure 1, Index 71) | 20 |
| FLOOD Option (Figure 1, Index 77) | 20 |
| FRZ Option (Figure 2, Index 15) | 27 |
| GMT (Figure 2, Index 1) | 23 |
| GN (Figure 2, Index 29) | 28 |
| Heading (Figure 1, Index 4) | 9 |
| HI (Figure 1, Index 24) | 13 |
| HITS (Figure 1, Index 3) | 9 |
| Horizon Line (Figure 1, Index 13) | 11 |
| IN RNG (Figure 1, Index 62) | 19 |
| In-Video Cursor (Figure 2, Index 13) | 26 |
| INTL (Figure 2, Index 3) | 24 |
| Introduction | 4 |
| Jam Strobes (A1-F18AC-FRM-010/(C)) | |
| L and S Target (Figure 1, Index 39) | 16 |
| LO (Figure 1, Index 24) | 13 |
| LST Mode Cue (Figure 2, Index 22) | 13 |
| LTWS (Figure 1, Index 21) | 13 |
| Mach (Figure 1 Index 22) | 13 |
| (Figure 2, Index 25) | 28 |
| MAN (Figure 1, Index 18) | 13 |
| MAP (Figure 2, Index 1) | 23 |
| Master Arm Cue (Figure 1, Index 6) | 10 |
| MED (Figure 1, Index 24) | 13 |
| MEM (Figure 2, Index 36) | 15 |
| Memory Cue (Figure 1, Index 64) | 19 |
| (Figure 2, Index 36) | 29 |
| Memory Time (Figure 1, Index 60) | 19 |
| Missile Time of Flight (Figure 1, Index 61) | 19 |
| Mode (Figure 1, Index 28) | 14 |
| Mode Fail X (Figure 1, Index 29) | 14 |
| Mode, A/G (Figure 2, Index 1) | 19 |
| NCTR (Figure 1, Index 59) | 19 |
| Number One Priority Target (Figure 1, Index 45) | 17 |
| Number Two Priority Target (Figure 1, Index 50) | 18 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Operating Condition (Figure 1, Index 32) | 14 |
| (Figure 2, Index 2) | 24 |
| OPR (Figure 1, Index 32) | 14 |
| Optimum Antenna Elevation (Figure 2, Index 37) | 29 |
| OVRHT (Figure 1, Index 59) | 59 |
| (Figure 2, Index 35) | 29 |
| Passive Ranging Cues (Figure 1, Index 11) | 11 |
| PDI (Figure 1, Index 24) | 13 |
| PEN FAN (Figure 2, Index 7) | 26 |
| Pointer, Aspect Angle (Figure 1, Index 48) | 17 |
| PRF (Figure 1, Index 24) | 13 |
| Priority Target, Number One (Figure 1, Index 45) | 17 |
| Priority Target, Number Two (Figure 1, Index 50) | 18 |
| Priority Targets (Figure 1, Index 39) | 16 |
| PVU (Figure 2, Index 1) | 23 |
| R-AERO (Figure 1, Index 34) | 15 |
| R-MAX (Figure 1, Index 34) | 15 |
| R-MAX 1 (Figure 1, Index 34) | 15 |
| R-MAX 2 (Figure 1, Index 35) | 15 |
| R-MIN (Figure 1, Index 40) | 16 |
| R-No Escape (Figure 1, Index 35) | 15 |
| Radar Acquisition Mode (Figure 1, Index 49) | 17 |
| Radar Range Scale (Figure 1, Index 55) | 18 |
| (Figure 2, Index 10) | 26 |
| RAID (Figure 1, Index 76) | 20 |
| RAID Cue (Figure 1, Index 64) | 19 |
| RAID Range (Figure 1, Index 73) | 20 |
| RAID Target (Figure 1, Index 75) | 20 |
| Range (Figure 1, Index 11) | 11 |
| Range Decrement (Figure 1, Index 9) | 10 |
| (Figure 2, Index 14) | 27 |
| Range Increment (Figure 1, Index 8) | 10 |
| (Figure 2, Index 12) | 26 |
| Range Rate (Figure 1, Index 37) | 15 |
| Range Scale, Radar (Figure 1, Index 55) | 18 |
| (Figure 2, Index 10) | 26 |
| Range/Azimuth Grid (Figure 2, Index 30) | 28 |
| Range/Velocity Grid (Figure 1, Index 14) | 11 |
| Range, Target (Figure 1, Index 37) | 15 |
| Raw Hit Targets (Figure 1, Index 74) | 20 |
| RF Channel (Figure 1, Index 30) | 14 |
| (Figure 2, Index 2) | 24 |
| RF Channel Fail X (Figure 1, Index 31) | 14 |
| RSET (Figure 1, Index 38) | 15 |
| (Figure 2, Index 16) | 27 |
| RTS XXXX (Figure 1, Index 68) | 20 |
| Scale, Radar Range (Figure 2, Index 10) | 26 |
| Scan, Azimuth (Figure 1, Index 42) | 16 |
| SCAN Center, AUTO/BIAS/MAN (Figure 1, Index 36) | 15 |
| SCAN Raid (Figure 1, Index 43) | 17 |
| SEA (Figure 2, Index 1) | 23 |
| Selected Waypoint (Figure 1, Index 57) | 19 |
| SET (Figure 1, Index 12) | 11 |
| SHOOT (Figure 1, Index 62) | 19 |
| SIL (Figure 1 Index 15) | 12 |
| (Figure 2, Index 17) | 27 |
| Sparrow MAX Seeker Range (Figure 1, Index 56) | 18 |
| Speed Gate Option (Figure 1, Index 46) | 17 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| SPOT (Figure 1, Index 20) | 12 |
| Stabilization Cue (Figure 2, Index 32) | 28 |
| STBY (Figure 1, Index 32) | 14 |
| STT Target (Figure 1, Index 58) | 19 |
| Steering Dot (Figure 1, Index 67) | 19 |
| SURF (Figure 1, Index 26) | 14 |
| TA (Figure 2, Index 1) | 23 |
| TA FAIL (Figure 2, Index 39) | 29 |
| Target Aging (Figure 1, Index 5) | 9 |
| Target Course and Speed (Figure 2, Index 40) | 29 |
| Target Range (Figure 1, Index 37) | 15 |
| Target, A/A (Figure 1 Index 2) | 9 |
| Target, A/G (Figure 2 Index 33) | 28 |
| Target, Filed (Figure 1, Index 33) | 15 |
| Target, L and S (Figure 1, Index 36) | 15 |
| Target Mach (Figure 1, Index 72) | 20 |
| Target, Priority (Figure 1, Index 39) | 16 |
| Targets, Unfiled (Figure 1, Index 51) | 18 |
| TDC Diamond (Figure 1, Index 54) | 18 |
| (Figure 2, Index 34) | 28 |
| TEST (Figure 1, Index 32) | 14 |
| Time of Flight, Missile (Figure 1, Index 61) | 19 |
| Time To Go (Figure 2, Index 9) | 26 |
| TRACK (Figure 2, Index 36) | 29 |
| Track Memory Time (Figure 1, Index 60) | 19 |
| Tracked Target Heading (Figure 1, Index 69) | 20 |
| Track/Memory Cue (Figure 2, Index 36) | 29 |
| TRAIN Option (Figure 1, Index 21) | 13 |
| TWS (Figure 1, Index 52) | 18 |
| Unfiled Target (Figure 1, Index 51) | 18 |
| Velocity Search Scale (Figure 1, Index 55) | 18 |
| Velocity Vector (Figure 1, Index 10) | 11 |
| Video Gain Setting (Figure 2, Index 23) | 28 |
| WACQ (Figure 1, Index 49) | 17 |
| Waypoint Target Bearing and Range (Figure 1 Index 70) | 20 |
| Weapon Type and Quantity (Figure 1, Index 6) | 10 |
| 1B (Figure 1, Index 1) | 9 |
| 2B (Figure 1, Index 1) | 9 |
| 4B (Figure 1, Index 1) | 9 |
| 6B (Figure 1, Index 1) | 9 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package has illustrations and descriptions of the display elements common to Radar displays. The illustrations are not meant to represent typical displays, but to provide general appearance

and positioning of the elements which make up Radar displays. The descriptions may contain schematic references which show the development of the display elements. For illustrations and descriptions of data link data common to Radar displays, see A1-F18AC-FRM-010(C).

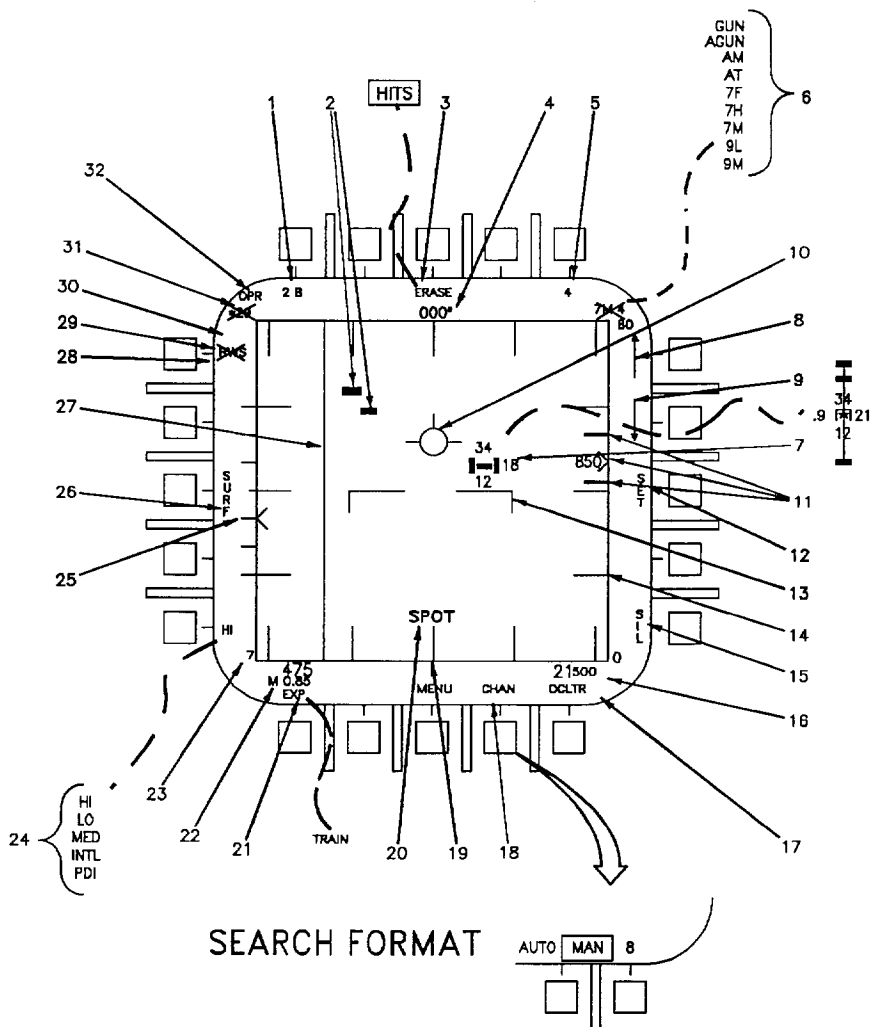
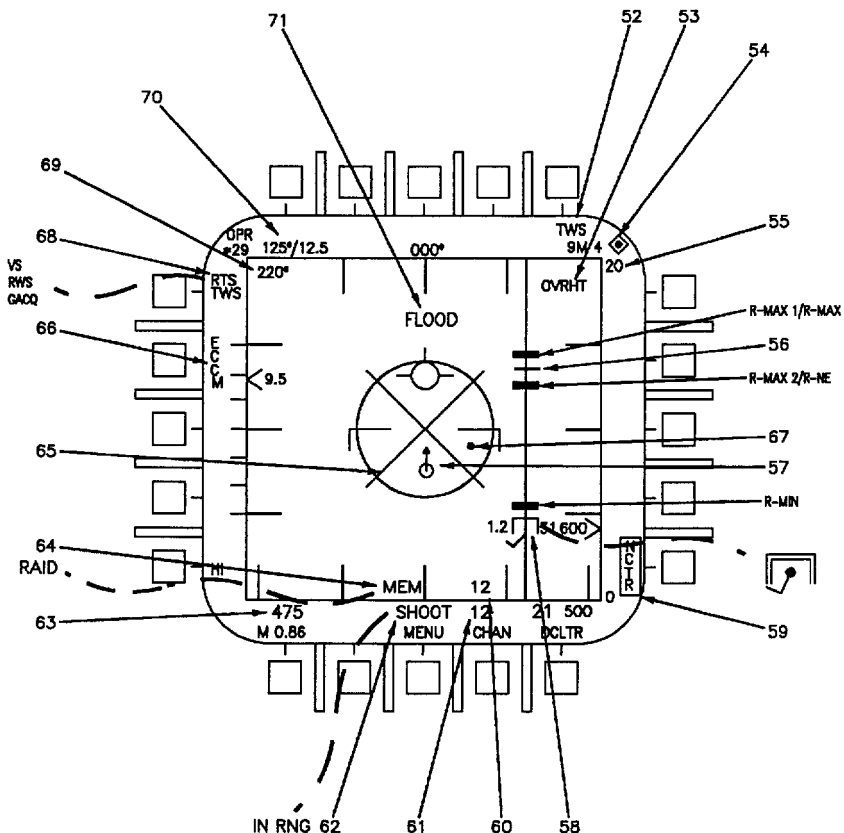


Figure 1. A/A Mode Radar Symboly (Sheet 1)



STT FORMAT

Figure 1. A/A Mode Radar Symboly (Sheet 3)




| Index No. | Display Element (Ref Code) | Description |
|---|--------------------------------|---|
| 1 | ELBAR (ØTBARS) | The selected elevation scan of the radar antenna (1B, 2B, 4B, or 6B) is displayed in all A/A radar modes except STT and ACM modes. Pushbutton switch action causes next higher number ELBAR selection and display. If 6B is displayed and pushbutton switch is pressed, 1B is displayed in all modes except TWS, (1B is not a selectable option in TWS and display goes to 2B). ELBAR selection in TWS is automatic if AUTO (index 36) is selected and is dependent on target coverage. If MAN (index 36) selected, ELBAR selection is made manually. ELBAR selection in TWS (manual or automatic), changes azimuth scan to keep it compatible with elevation scan. Maximum azimuth scan width in TWS is decreased as number of elevation steps is increased (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00). |
| 2 | Targets (ØTWS(1-8)X ØTWS(1-8)U | Radar detected targets are displayed as solid rectangles. The horizontal position indicates relative azimuth. The vertical position indicates range in RWS and TWS, and velocity in VS, referenced to the range/velocity grid (index 14). All targets are positioned on the display by radar in the VS and RWS modes. In TWS, the radar determines priority for all detected targets. The ten highest priority targets (based on time to go) are assigned track files. Target data on the eight highest priority targets are sent to the mission computer (MC), and based on this data, the MC positions filed target symbols (index 33) on the indicator. The eight highest priority targets are assigned a special symbol number (one through eight) coinciding with their priority ranking. All detected unfilled targets (index 51) are positioned by radar (TWS Targets and Launch and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 3 | ERASE/HITS (ØTERS(1-3)) | ERASE. Selection in RWS and VS,  or TWS modes commands the radar to erase existing target aging (see index 5).  HITS. Displayed when radar mode is TWS. When HITS option is selected target raw hit position is displayed and HITS option is boxed. HITS is not displayed when radar mode is SCAN RAID (index 43). HITS option may be cancelled by deselecting HITS pushbutton (not boxed) or selecting RSET (index 38). (Erase/Freeze and Target Aging Schematic, A1-F18AC-742-500, WP017 00). |
| 4 | Heading (ØTAHD1) | Magnetic heading displayed if available on HUD display (HUD Display Symbology, WP007 00). |
| 5 | Target Aging (ØTAFAX) | Current target aging in seconds, displayed and selectable in all A/A modes. Selectable levels are 2, 4, 8, 16, and 32 seconds. Aging is increased to next higher level each time pushbutton switch is pressed. If current value is 32, pushbutton switch action selects 2 seconds. Aging commands radar to keep target in display file for specified period, even if return is lost. In TWS mode, target aging is selectable for unfilled targets and target aging fixed at 2 seconds for filed targets (not displayed) (Erase/Freeze and Target Aging Display Schematic, A1-F18AC-742-500, WP017 00). |
|  | ACTIVE (ØTAFAX) | Displayed when radar is in RWS/Silent or VS/silent. Commands radar to active mode for one mux iteration when pressed. (RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 6 | Weapon Type and Quantity (ØTWPN1, ØTMAST) | Weapon type and quantity (and master arm condition) displayed as on HUD display when in A/A master mode (HUD Display Symbology, WP007 00). |
| 7 | Acquisition Cursor (TRCRSX) | <p>The acquisition cursor is positioned by radar and displayed at all times in search and TWS modes. The cursor moves vertically and horizontally on the display in response to rate commands from the Throttle Designator Controller (TDC). When the Cursor is in the tactical area of the display, numbers are displayed above and below it by the MC. These indicate in thousands of feet the altitude coverage of the radar beam at the range at which the cursor is displayed.</p> <p>Altitude coverage numerics are not displayed when radar mode is STT RAID. (In VS mode, cursor range value varies from 0 to 80 miles). The acquisition cursor is used to manually command the radar to acquire designated targets.</p> <p>STT RAID cluster targets may not be acquired using the acquisition symbols. Raw hit targets may be acquired using the acquisition symbols. RAID is cancelled when a raw hit target is acquired and/or select radar mode/parameters from the display.</p> <p>Target altitude and mach are displayed when the acquisition cursor is positioned over a filed or unfiled target. When an unfiled target (raw hit) is under the cursor, target altitude is displayed. When a filed target is under the cursor, all targeting data (except SHOOT cues) will be displayed as though the target was the L and S target. L and S target validity will not be set. Numerics indicate target altitude in thousands of feet and target mach when displayed.</p> <p>(In VS mode, cursor range value varies from 0 to 80 miles.) The acquisition cursor is used to manually command the radar to acquire designated targets and/or select radar mode/ parameters from the display (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00).</p> |
| 8 | Range/Velocity Increment (ØTAARØ) | Arrow is displayed in TWS and RWS. Pushbutton switch action selects next higher operating range. If 160 mile range is selected, pushbutton switch has no effect. In STT or when target is designated, arrow is removed. For opening targets, range is incremented by radar to keep the target symbol in the lower 93% of the display area. In ACM, range is fixed at 10 nmi in WACQ and BST or 5 nmi in GACQ (GUN) or VACQ. In VS mode, pushbutton selects 2400 knot scale (index 55). Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00). |
| 9 | Range/Velocity Decrement (ØTAARØ) | Arrow is displayed in TWS and RWS. Pushbutton switch action selects next lower operating range. If 5 mile range is selected, pushbutton switch has no effect and HI and INTL PRF (index 24) are not displayed. In STT or when target is designated, arrow is removed. For closing targets, range is decremented by radar to keep target symbol in the upper 45% of the display area. In ACM, range is fixed at 10 nmi in WACQ or 5 nmi in GACQ (GUN), VACQ, and BST. In VS mode, pushbutton selects 800 knot scale, (index 55). (Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 6)





| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------------|---|
| 10 | Velocity Vector (ØTAVLX) | The velocity vector is displayed if: <ol style="list-style-type: none"> 1. Declutter 1 or 2 not selected 2. Velocity vector valid 3. Flight path angle valid 4. Attitude valid. It is displayed at a fixed position and used with the moving artificial horizon (index 13) to indicate the aircraft vertical flight path angle and roll attitude (Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00). |
| 11 | Range/Velocity Closing | Range/Closing Velocity is displayed when the acquisition symbols are positioned over an unassociated target (no track file/priority established). Range caret indicates target range on the range scale and numerics indicate closing velocity. |
| | Passive Ranging Cues | Passive ranging best guess and plus or minus sigma uncertainty cues are displayed when passive ranging data is calculated from  STT angle-only-track (AOT) target or  FLIR autotrack target (Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AC-742-500, WP026 00). |
| 12 | SET (ØTASTX, ØTAST3) | Displayed in RWS mode, the set option is used to change the stored radar operating parameters that are selected whenever a new A/A missile is selected with the weapon select switch.  With weight-off-wheels and gear up, or  regardless of the status of weight-on-wheels, the stored radar parameters of PRF, azimuth scan, elevation scan, range scale, and target aging can be reprogrammed by selecting an A/A missile, changing parameters to desired values and then pressing the SET pushbutton. The SET legend will be boxed for 2 seconds indicating that the new parameters have been stored. The parameters programmed become the new radar initialization parameters for that weapon (Set Option and Sensitivity Indicator Processing and Display Schematic, A1-F18AC-742-500, WP042 00). |
| 13 | Horizon Line (ØTAPIX) | The horizon line is displayed when the velocity vector is displayed. Its vertical position with respect to the velocity vector indicates vertical flight path angle, and its alignment with the velocity vectors wings in the horizontal plane indicates aircraft roll attitude. It is limited to $\pm 6^\circ$. If flight path angle exceeds $\pm 6^\circ$, the horizon flashes (Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00). |
| 14 | Range/Velocity Grid (ØTJMPG, ØTVLSL) | In RWS and TWS, grid lines represent range. Either a five line grid, if 5 mile or 10 mile operating radar range scale, or four line grid, for all other range scale selections, is displayed. The operating range scale (5, 10, 20, 40, 80, or 160) is displayed at the top of the scale. In the VS mode, the scale represents target velocity, the top of scale being 2400 knots. In the RAID mode, the grid lines are not displayed (Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 7)



| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 15 | SIL (ØTASI1) | The silent option is available in the RWS and VS modes. Selection causes the legend to be boxed. When radar receives the silent command from the MC, the transmitter rf output is inhibited and the receiver remains enabled. Positioning the cursor (index 7) in the tactical area of the display and pressing the TDC enables the transmitter rf output for one antenna frame. Target data received during the active phase is frozen on the display until ERASE is commanded by the Mission computer. SIL option is removed when the radar mode is AACQ. ACTIVE (index 5) is removed when SIL is selected (Erase/Freeze and Target Aging Display Schematic, (A1-F18AC-742-500, WP017 00). |
| 16 | Altitude (ØTAAL1) | <ol style="list-style-type: none"> 1. With ALT switch in BARO, barometric altitude is displayed if valid (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). 2. With ALT switch in RDR, radar altitude is displayed and identified by an R. If RDR selected but not valid, barometric altitude is displayed with a flashing B replacing the R. If barometric altitude also not valid, only flashing B is displayed. The thousand and ten thousand digits are larger than the tens, hundreds, and units except when altitude less than 1000 feet, then all digits are large size. (Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00). |
| 17 | DCLTR (ØTACHN) | There are two levels of declutter, DCLTR 1 and DCLTR 2. DCLTR 1 selection removes the horizon line and velocity vector, and DCLTR 1 is boxed. DCLTR 2 is available once DCLTR 1 is selected. DCLTR 2 selection removes the horizon line, velocity vector, target heading, range caret, differential altitude range rate numerics, and DCLTR 2 is boxed. If DCLTR 2 is boxed, pushbutton switch action deselects declutter (Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00). |
| 18 | CHAN (ØTACHN) | The channel option is available in all radar modes. Selection of CHAN option replaces CHAN legend with the AUTO-MAN legend, with either AUTO or MAN being boxed, indicating whether radar transmission channel selection is being made manually or by the Radar Target Data Processor CP-1326/APG-65. At the same time the DCLTR legend is replaced by a digital display of any one of eight AUTO channel sets or any of the individual channels and channel set if MAN is selected. If AUTO is selected and boxed, the mission computer will display a letter (or asterisk if the wide channel set) indicating the channel set. Pressing the AUTO-MAN pushbutton switch causes the alternate mode (AUTO or MAN) to be boxed. Manual selection of transmitter channels is indicated by channel number changing as pushbutton switch (formerly DCLTR) is pressed. No pushbutton switch action for a period of five seconds returns the CHAN - DCLTR display and options CHAN option is removed if a missile is inflight (Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00). |
| 19 | Azimuth Grid (ØTRAID) | Displayed at $\pm 30^\circ$ and $\pm 60^\circ$ from center in all A/A modes except when in RAID mode. (Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00). |
| 20 |  SPOT (ØTSLPX) |  Displayed when radar is in spotlight mode. (Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 8)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 21 | <div> <div>1</div> EXP (ØTTWXX) </div> <div> <div>1</div> LTWS (ØTLTWX) </div> <div> TRAIN </div> | <div> <div>1</div> Displayed when TWS mode, an L&S target is not angle-only-track, L&S range is greater than 5 NM and SCAN RAID or EXP is not selected. Pressing EXP pushbutton displays TWS expanded display with the L&S target centered in a plus/minus 10 NM range/20 degrees azimuth and EXP option is boxed. The radar continues to operate in full TWS scan. The following displays occur when EXP is boxed: <ol style="list-style-type: none"> 1. launch zones (except aim circle and steering dot) are removed. 2. B-Sweep is frozen at the azimuth of the L and S target (antenna continues to scan). 3. range select arrows are removed. 4. a/a waypoint symbol is removed. (TWS Targets and Launch Range and Steering Target Display Display Schematic, A1-F18AC-742-500, WP021 00). </div> <div> <div>1</div> Provided when radar mode is RWS. When LTWS is selected (boxed) and the acquisition cursor is over a target attack symbology is provided on the: <div> <div>3</div> radar display and HUD (see also index 7). </div> <div> <div>3</div> radar display. Provided for selection of the trackfiles to be displayed and is used in combination with the MSI option (index 54). For MSI/LTWS operation see MSI Option (Air To Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). </div> </div> <div> Displayed at power up with weight on wheels. Disables some end-of-frame agility in search mode. </div> |
| 22 | Mach (ØTACM1) | Displayed in all radar modes when valid from Air Data Computer System (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 23 | AGC/ Threshold Level (Sensitivity Indicator) (ØTAAGC) | Radar sensitivity is indicated by a number between 1 and 9 in all modes except STT. The lower the sensitivity, the less effective the radar is. Low sensitivity indicates the maximum range at which the radar can detect, acquire, and track targets is reduced, A 1 (one) indicates minimum sensitivity and 9 (nine) indicates maximum sensitivity (Set Option and Sensitivity Indicator Processing and Display Schematic, A1-F18AC-742-500, WP042 00). |
| 24 | PRF (ØTPRF1-2) | Radar operating PRF is displayed in all a/a modes. HI, MED, LO, or INTL is displayed. When LO displayed, pushbutton switch action commands HI. If HI displayed, pushbutton switch action commands MED. If MED displayed, pushbutton switch action commands INTL. If INTL displayed, pushbutton switch action commands HI. LO is not manually selectable, and is displayed only if commanded by the computer. When in TWS or RWS modes and range is 5 miles, HI and INTL PRF are not displayed. If in VS mode, HI is always displayed and cannot be de-selected. If in track, manual selection is not available (PRF Selection and Display Functional Schematic, A1-F18AC-742-500, WP012 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| | PDI (ØTPRF1, ØTPRF2) | <div> <div>2</div> <div>3</div> </div> <p>Displayed when radar is in missile compatible PRF for AIM-7 launch. When pushbutton is pressed and PDI is not displayed, a Sparrow missile is the selected weapon, and no AMRAAM missile is in flight, the radar is forced to terminal phase illumination mode and the pushbutton legend PDI is displayed and boxed to indicate pilot selection. If pushbutton is pressed and PDI and box are displayed, the radar stops terminal phase illumination unless a Sparrow is in flight with less than 10 seconds to intercept, remove the legend box, and display the radar PRF. The option will be boxed when Sparrow is deselected while the option is boxed, or radar track is lost and the radar returns to search (Set Option and Sensitivity Indicator Processing and Display Schematic, A1-F18AC-742-500, WP042 00).</p> |
| 25 | Elevation Scale and Caret (ØTAENA) | Displayed in all A/A radar modes. Position of caret on scale indicates the position of radar antenna in the vertical plane (B-Sweep and Elevation Caret Positioning and Display Schematic, A1-F18AC-742-500, WP024 00). |
| 26 | SURF (ØTSRF1) | The SURF legend is displayed in all radar A/A Search modes when aircraft master mode is NAV and radar not tracking. If pushbutton switch pressed, the radar operating mode changes from A/A to A/G (Air-to-Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |
| 27 | B-Sweep | Provides real time display of radar antenna azimuth position. In VS mode, top of sweep represents 800 knots or 2400 knots of target velocity, and the bottom, 0 knots (see index 55). In all other A/A modes, top of sweep indicates maximum value of operating range scale in nautical miles, and the bottom, 0 range. Sweep is enabled and positioned by radar (B-Sweep and Elevation Caret Positioning and Display Schematic, A1-F18AC-742-500, WP024 00). |
| 28 | Mode (ØTAMD1) | Operating radar mode, RWS, TWS, or VS is displayed in A/A radar modes. If RWS is displayed, pushbutton switch action commands VS. If VS displayed, pushbutton switch action commands TWS. If TWS displayed, pushbutton switch action commands RWS. If BST, GACQ or VACQ is selected, or if radar is in track, mode legend is blanked (Air-to-Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |
| 29 | Mode Fail X (ØTAMD3) | X displayed over mode or where mode is normally displayed when radar built-in test detects mode fail (Air-to-Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |
| 30 | RF Channel (ØTATR1) | The RF channel display indicates the RF channel set on which the radar set is operating and whether it is in automatic frequency agility (A) or manual RF channel set (M) operation. It is displayed in all radar modes. (See also CHAN, index 18). (Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00). |
| 31 | Channel Fail X (ØTATR3) | X displayed over operating channel when radar built-in test detects channel fail. When CHAN select is AUTO mode (index 18), radar will select next channel and X will not be displayed. When CHAN select is MAN (index 18), X will be displayed (CHAN Select and Display Schematic, A1-F18AC-742-500, WP011 00). |
| 32 | Operating Condition (ØTAØP1, ØTAØP2) | If MC and radar system are not communicating via mux, RDY with a line through it is displayed. Otherwise, operating condition of radar, standby (STBY), operate (OPR), emergency (EMER), or test (TEST) is displayed (Operating Status Select and Display Schematic, A1-F18AC-742-500, WP008 00). |

Figure 1. A/A Mode Radar Symbolgy (Sheet 10)



| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 33 | Filed Target (ØTWS9X thru ØTWS8X) | In TWS mode, priority number two through eight target are displayed as numbered filed targets with target aspect angle pointer (index 48). When SCAN RAID is active, filed targets are displayed in the raid volume (10 NM by 20 degrees) or at the radar display border in their location relative to the L and S target. (TWS Targets and Launch Range, and Steering Target Display Schematic, (A1-F18AC-742-500, WP021 00). |
| 34 | R-MAX/(R-MAX1)/R-AERO (ØT(1-4)X1X) | Displayed if range envelope data are valid and operating radar range scale is valid. Description is identical to that of HUD display. R-AERO is the range at which the missile no longer has aerodynamic capability (speed is below the velocity of the launch aircraft). R-AERO may coincide with R-MAX and is usually visible with target aspects less than 60°. (HUD Display Symbology, (WP007 00). |
| 35 | R-No Escape (R-MAX2) (ØT(1-4)X2X) | Displayed if range envelope data are valid and operating radar range scale is valid. Description is identical to that of HUD display (HUD Display Symbology, WP007 00). |
| 36 | AUTO/MAN Scan Center (ØTAUT1,2) | Displayed when TWS is selected. Pushbutton switch commands alternate action with selected state boxed. With MAN selected, the azimuth scan remains centered at its last commanded position and the elevation scan is centered as a function of vernier setting and elbar selection. With AUTO selected, the azimuth and elevation scans are centered on the centroid of the targets with established track files. |
| |  AUTO/BIAS/ MAN (ØTWSLG) |  When AUTO scan centering is modified by biasing the azimuth center using the TDC when radar acquisition is not over a target, the BIAS legend will replace the AUTO legend. BIAS will be removed when: <ol style="list-style-type: none"> 1. platform heading and inserted heading are different by more than 90 degrees. 2. RSET is selected. 3. TWS is exited. 4. SCAN raid is selected. 5. MAN is selected. 6. an AMRAAM is launched. 7. Track files no longer exist. Elevation center is not affected by BIAS (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00). |
| 37 | Target Range/ Range Rate (ØTCLS1) | Displayed in TWS and STT. Not displayed if DCLTR 2°qaCLASSIFICATION MACROS selected (index 17). Caret vertical position indicates target range as a function of operating radar range scale. Range rate in knots is displayed next to caret, if valid. In TWS mode, range and range rate are for priority one/L & S target (index 39) (Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AC-742-500, WP026 00). |
| 38 | RSET (ØTARS1) | The RSET legend is displayed in TWS. Pushbutton switch action commands the radar to reinitialize the mode. Radar drops all manually entered target tags and all targets are subject to normal prioritization auto scan centering is cancelled, SCAN RAID, EXP, and HTS are cancelled and the radar returns to TWS mode. (Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 11)







| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 39 | L&S/DT2 Target (ØTWS(1-8)X, ØTDL(1-8)A, ØTDL(1-8)M) | <p>In TWS, up to 64 targets can be displayed at one time. The display format is range (vertical) versus azimuth (horizontal). Radar prioritizes the targets as a function of range and range rate, and maintains track files on the top-ten priority targets. It also determines the launch and steering (L&S) target and transmits to the MC target data for the eight highest priority targets (index 2). The MC enables a unique L&S target symbol in the center of the indicator which is positioned by the radar at its relative range/azimuth. The L&S target is identifiable by Mach (to its immediate left) and altitude in thousands of feet (to its immediate right) being displayed. To designate a different target as the L&S target, the pilot uses the Throttle Designator Control (TDC) to position the acquisition cursor over the new target and presses and releases the TDC action switch. The MC then commands the radar to treat the designated target as the L&S target in its location in the ranking structure. If the pilot designates the current L&S target, the MC commands the radar to initiate acquisition and the radar goes to single target track (STT) on the L&S target. Mach and altitude are displayed beside the STT target as described for the L&S target display. When the STT target is a multiple target a double target symbol is displayed (sheet 3) and RAID mode may be commanded. All TWS targets priority 9 and lower are displayed directly by radar.</p> <p> A DT2 target is designated by selecting a track file other than the L and S target and is indicated by a diamond symbol as target priority. Target mach and altitude are displayed for a DT2 target. (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00)</p> |
| 40 | R-MIN (ØT(1-4)MNX) | Displayed if range envelope data are valid and operating radar range scale is valid. Description identical to that of HUD display (HUD Display Symbology, WP007 00). |
| 41 | Acceleration Vector (ØTALSX ØTWAHX) | Displayed for L&S and STT targets, perpendicular to the aspect angle pointer (index 44) and in the direction of target acceleration. Indicates target is doing a maneuver of 3 g's or more. Length of the vector is directly proportional to amount of acceleration (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 42 | Azimuth Scan (ØTAAZX) | Provides pushbutton selection of  20°, 45°, 90°, and 140°  20°, 40°, 60°, 80°, and 140° azimuth scan patterns in VS and RWS A/A radar modes. In TWS modes azimuth scans are function of elevation bar scan selection (index 1). ELBAR 2B commands  80°, 60°, 40°, and 20° azimuth scan, 4B commands  40°  40° and 20°, and 6B commands 20°. Azimuth scans of 20°, 45°, 90°, and 120° exist in MAP, SEA and GMT A/G radar modes (Air-to-Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 12)



| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 43 |  SCAN RAID (ØTSRDX) |  SCAN RAID cue provided when raid mode is commanded in TWS Mode. When SCAN RAID is displayed, EXP (index 21), HITS (index 3), AUTO/MAN centering (index 36), Range select arrows (index 8, 9), Azimuth scan (index 42), Elevation Bar options (index 1), Azimuth grid (index 19), and Range Grid (index 14) are removed. The entire selected TWS scan volume is scanned and processed by the radar but only the 10 NM by 20° area centered on the L and S target, and filed targets (index 33) are displayed of their relative position. Raw hit targets in the display area are also displayed. SCAN RAID is cancelled when RAID is selected again, RSET (index 38) is selected, the L and S target becomes angle only track, the L and S target range is less than 5 miles, or the L and S target is dropped. (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 44 | ASE Circle (ØTASEX) | The allowable steering error (ASE) circle provides a steering reference in the sparrow and sidewinder modes when radar is tracking a target. The center of the ASE circle is positioned in the center of the indicator. Sparrow ASE circle diameter is computed from the intercept geometry. When sidewinder is selected, the ASE circle has a fixed diameter (ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |
| 45 | Number 1 Priority Target (ØTWS1X) | In TWS, the filed target with the shortest time to go is the number one priority target. If the L&S target (index 39) is assigned to a filed target other than the number one priority target, the number one (1), aspect angle pointer (index 48), and target mach and altitude in thousands of feet are displayed for the number one priority target. If L&S target is assigned to number one priority target, target is represented by L&S symbol (index 39) (TWS Targets and Launch and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 46 | Speed Gate Options (ØTASGX, ØTASGY) | Displayed in RWS, VS, or TWS modes. The displayed speed gate indicates the width of the radar receiver filter. NORM indicates normal radar detection. WIDE filters out the slower moving targets detected in the NORM option (Speed Gate Select Schematic, A1-F18AC-742-500, WP043 00). |
| 47 | Differential Altitude (ØTRLA2, ØTRLA3, ØRLA4) | Displayed in TWS and STT. Not displayed if DCLTR 2 selected (index 17). Indicates altitude difference in thousands and tens of thousands of feet between own aircraft and tracked target. Altitudes lower than own aircraft own aircraft altitude are expressed as negative numbers (Range/Range Rate and Target Differential Alt Display Schematic, A1-F18AC-742-500, WP026 00). |
| 48 | Aspect Angle Pointer (ØTWV(1-8)X) | Displayed on all filed targets in TWS and on the tracked target in STT. The aspect angle pointer is a fixed length and indicates horizontal angle created by radar line of flight and target velocity vector intersect geometry (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 49 | Radar Acquisition Mode (ØTAAQ1, ØTAAQ2, ØTAAQ3) | AACQ displayed in NAV or A/A master mode when radar is in auto acquisition mode (sensor select switch set to right). WACQ displayed when radar is in wide acquisition mode (sensor select switch set to left) (Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 13)



| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 50 | Number 2 Priority Target (ØTWS2X) | In TWS mode, the second highest priority target is displayed as a number two (2) with target aspect angle pointer (index 48) (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 51 | Unfiled Targets | When radar has reached limit of filed targets (10), all other detected targets, up to 64 targets, are displayed as unfiled target symbol. If an unfiled target appears to have higher priority than one or more of the filed targets (index 33), radar assigns priority to that target and it will be placed in proper filed target priority sequence (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 52 | TWS (ØTTWSS) | Displayed in STT mode. Pushbutton switch action enables transition from STT to TWS mode without returning to a search mode. Not displayed when A/A gun selected in STT mode or return to search default mode (index 68) is displayed. (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-600, WP015 00). |
| 53 | OV RHT (ØTAØHT) | Displayed and flashed when mission computer system receives radar overheat message. OV RHT is not flashed when EMERG is selected on SNSR pod control box assembly (Radar Liquid Coolant and Cooling Air Schematic, A1-F18AC-742-500, WP007 00). |
| 54 | TDC Diamond (ØTATDX) | Displayed when TDC priority assigned to radar (Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |
| 55 | Radar Range Scale (ØTAGR1) Velocity Search Scale (ØTVSS1, ØTVSS2) | Selected radar range scale is displayed in all modes except AGR and PVU (Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00). 2400 or 800 are displayed in VS mode to indicate the 2400 Knot and 800 Knot scales of the VS mode. Increment and decrement arrows (indices 8 and 9) select modes, up arrow selecting 2400 and down arrow selecting 800. |
| 56 | Sparrow Max Seeker Range (ØTSKRX)  |  Displayed when radar mode STT and: <ol style="list-style-type: none"> 1. Not STT RAID 2. Sparrow is the selected weapon 3. radar full track 4. ARM status (or SAFE/SIM) 5. not jammed 6. not track memory 7. SHOOT cue not displayed. Indicates computed maximum Sparrow seeker range. When seeker range exceeds target range, SHOOT will be displayed if all other SHOOT logic is satisfied. (ASE Circle, Steering Dot, RMAX, RMIN and Break-X Display Schematic, A1-F18AC-742-500, WP023 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 14)


| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 57 | Selected Waypoint (ØTAWPX, ØTANPX) | Displayed when radar is in RWS, TWS, and STT. Indicates the currently selected waypoint as displayed on the HI display (WP009 00). When designated, the waypoint circle will change to the designated diamond symbol. An offset waypoint will not be displayed until the offset has been designated. The pointer is north orientated relative to aircraft heading regardless of position on the radar display. Removed when expanded TWS is displayed (Waypoint Option Schematic, A1-F18AC-742-500, WP044 00). |
| 58 | STT Target | Target type symbol with tracking angle when single target track (STT). Aspect pointer, target mach, and target altitude in thousands of feet are displayed.  When the radar detects multiple targets, the target symbol is changed to a multiple target symbol. STT RAID may be selected (figure 1, sheet 4, this WP) (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 59 | NCTR (ØTNCTX) | For description see A1-F18AC-FRM-010/(C). |
| 60 | Memory Time (ØTKTIM) | Time in track memory in seconds is displayed if radar is extrapolating target track data (limited to 99 seconds) (Memory Track Display Schematic, A1-F18AC-742-500, WP028 00). |
| 61 | Missile Time of Flight (ØTIMF1, ØTIMF2, ØTIMF3) | Missile time of flight is displayed if on HUD display (HUD Display Symbology, WP007 00) (Time-to-go/LOST and Missile Time of Flight Display Schematic, WP027 00). |
| 62 | SHOOT (ØTSHT1) | Shoot cue displayed if on HUD display (HUD Display Symbology, WP007 00) (Lock/ Shoot Light Schematic, A1-F18AC-740-500, WP020 00). |
| | IN RNG (ØTRNGX) | If in RAID mode with target in range but shoot cue not valid, IN RNG displayed (Raid Display Processing Schematic, A1-F18AC-742-500, WP030 00). |
| 63 | Airspeed (ØTASP1) | Displayed in all radar modes if available on HUD display. When 5 mile range scale is selected, airspeed digits are also displayed in large numbers in upper left of display (HUD Display Symbology, WP007 00). |
| 64 | Memory Cue (ØTKME1) | Memory cue displayed if radar is extrapolating target track data (Memory Track Display Schematic, A1-F18AC-742-500, WP028 00). |
| | RAID (ØTRADX) | RAID displayed in this area when commanded if radar not in track memory. Not displayed when WACQ (index 49) is selected (Raid Display Processing Schematic, A1-F18AC-742-500, WP030 00). |
| 65 | Break-X (ØTBRKS) (ØTABKX) | Break-X displayed and flashed if on HUD display (HUD Display Symbology, WP007 00). |
| 66 | ECCM (ØTAECX, ØTSECX) | Displayed in all radar A/A and A/G modes except when the radar is in BIT or when the radar acquisition cursor comes within the radar mode window to select radar mode or radar return to search mode (not a HOTAS function). |

Figure 1. A/A Mode Radar Symbology (Sheet 15)











| Index No. | Display Element (Ref Code) | Description |
|---|--|---|
| 67 | Steering Dot (ØTDØTX) | Displayed in TWS and STT. Description identical to that of HUD display (HUD Display Symbology, WP007 00). |
| 68 | RTS XXXX (ØTRTS1-5)  |  Displayed when radar is in STT or RAID. Indicates the operating mode which will be commanded when the radar returns to search. Return to search commands available are VS, TWS, RWS, and GACQ. RTS mode may be changed by pressing and holding the TDC and selecting a new mode with normal mode HOTAS operation (Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 00). |
| 69 | Tracked Target Heading (ØTATKX) | Displayed when radar is in STT or TWS with an L&S target. Indicates the tracked target's heading. |
| 70 | Waypoint Target Bearing and Range (ØTABRX) | Displayed when the A/A WYPT option (WP009 00) is selected and the radar mode is STT or TWS with an L&S target. Indicates bearing and range of the target from the selected waypoint. |
| 71 | FLOOD (ØTAFLD) | Displayed if flood commanded by radar. Not displayed when WACQ (index 49) is selected (Flood Selection Display Schematic, A1-F18AC-742-500, WP025 00). |
| 72 | Target Mach (ØTTGMX) | Target mach displayed when radar mode is STT RAID and target mach data is valid (RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00). |
| 73 | Raid Range (ØTAGR1) | Upper and lower limits of 5 NM RAID search volume (Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00). |
| 74 | Raw Hit Targets  |  Targets detected in the raid scan volume which are not a part of the RAID cluster are displayed as raw hits with the target altitude (TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00). |
| 75 | RAID Target  |  Target symbol displayed for each target in a RAID target cluster. Target altitude for each target is displayed (RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00). |
| 76 | RAID (ØTKME1) | Displayed when RAID mode is active. (RAID Processing and Display Schematic A1-F18AC-742-500, WP030 00). |
| 77 | FLOOD Option (ØTAFDX)  | Displayed when radar mode is STT, an AIM-7 missile is in flight, and the radar is not in FLOOD. Pressing pushbutton commands the radar to FLOOD and removes the pushbutton legend. FLOOD is also removed when the radar track is dropped or time of flight expires (Flood Selection Display Schematic, A1-F18AC-742-500, WP025 00). |
| LEGEND | | |
|  Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000). | | |
|  Digital Data Computer CONFIG/IDENT Number 87X (A1-F18AC-SCM-000). | | |
|  Digital Data Computer CONFIG/IDENT Number 92A AND UP (A1-F18AC-SCM-000). | | |

Figure 1. A/A Mode Radar Symbology (Sheet 16)

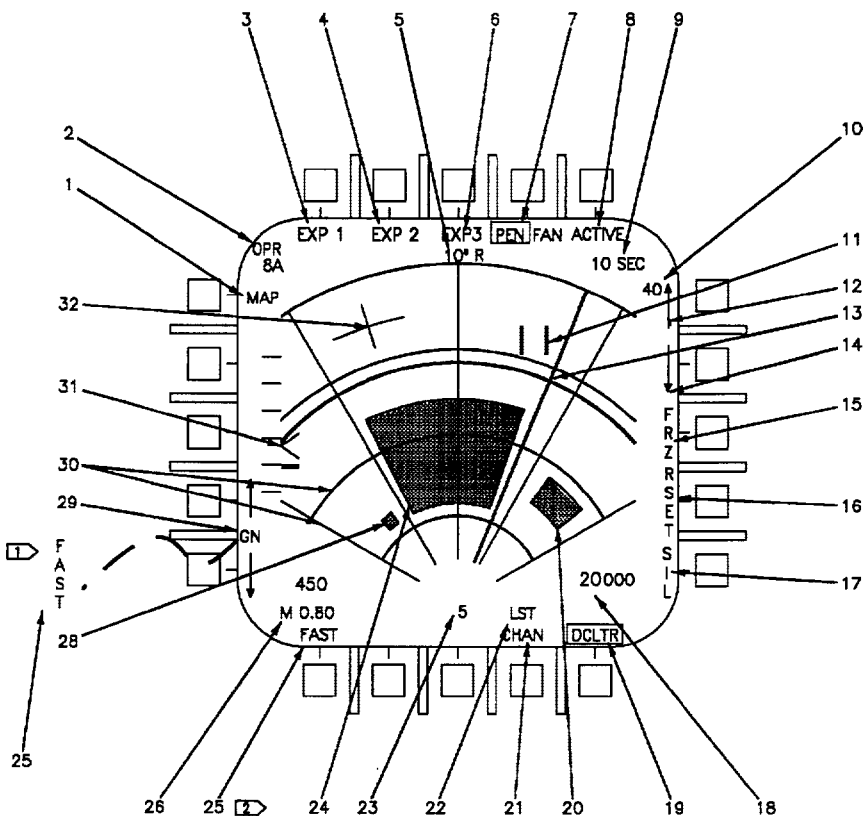


Figure 2. A/G Mode Radar Symbology (Sheet 1)

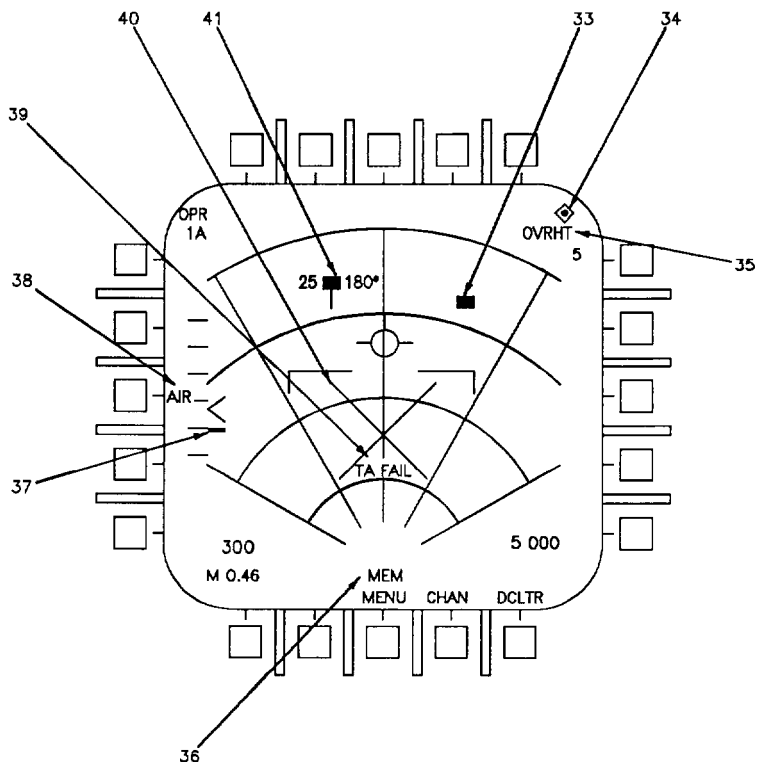


Figure 2. A/G Mode Radar Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 1 | <p>A/G Mode (ØTSMD1)</p> <p>Terrain Avoidance (TA)</p> <p>Precision Velocity Update (PVU)</p> | <p>TA, MAP, GMT, SEA, AGR, or PVU is displayed in this area as an indication of operating radar mode. If TA is displayed, consecutive pushbutton switch actions cause MAP, GMT, SEA, and TA mode selections respectively. The TA option is available in the NAV and A/G master modes. Pushbutton switch action when SEA is displayed, if not in NAV, causes MAP mode selection and display. Descriptions of MAP mode displays can be found under indices 3 and 4. In GMT and SEA the terrain video is displayed at minimum intensity and the target video at maximum intensity. In GMT with INTL option selected (GMT/MAP) the moving target video is displayed at maximum intensity and terrain video at two intensity levels lower. In SEA with INTL option selected (SSS/RBGM), the sea surface search target is displayed at maximum intensity. The area bordering the target is displayed at lesser intensity. Both SEA and GMT displays are ground track up, PPI displays. The cursor is displayed when TDC priority is assigned to radar except when in track. Range scale is set by radar to keep the target at mid range position (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-500, WP018 00).</p> <p>In the TA mode, information is also displayed in a PPI format. A displayed range scale of 10 nmi and a 70° antenna azimuth scan centered around the aircraft ground track are used in this mode. Three levels of display intensity (including black) provide terrain clearance information. Two clearance planes are computed by the radar. One plane passes through the aircraft, the other 500 feet below the aircraft. Terrain which protrudes above the upper clearance plane is displayed at maximum intensity. Terrain which is below the lower clearance plane is not displayed. Terrain which falls between the two clearance planes is displayed at an intermediate intensity. Those range and azimuth calls in which rain or chaff is the dominant return are identified by radar and flashed at a maximum intensity on frame to frame basis. A constant range arc is displayed at the range where the 600 foot clearance plane falls below the antenna processing beam width, in addition to the four range arcs displayed in other A/G modes. A display intensity test pattern is also provided (by radar system) which is used to correctly adjust the manual video intensity control. While the aircraft is in level flight or climbing, the clearance planes are horizontal. While the aircraft is diving, the clearance planes are maintained parallel to the velocity vector (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-500, WP018 00).</p> <p>Selection of the Precision Velocity Update (PVU) mode is made by the mission computer system (MC) when inflight alignment or velocity update is selected, if the operating mode is not TA. The PVU display is made up of MC commanded calligraphics (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00).</p> <p>Velocity errors are displayed as delta north, east, and vertical quantities, derived from comparison of radar doppler velocities and best available MC velocities. Accuracy of doppler derived velocity is variable as a function of time in the PVU mode. The radar estimates the quality of these data and a QUAL figure, in knots, is displayed. Radar is returned to its previous operating mode when IFA or velocity update is deselected (AGR/PVU Processing and Display Schematic, A1-F18AC-742-500, WP032 00).</p> |

Figure 2. A/G Mode Radar Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| | Air To Ground Ranging (AGR) | <p>If TDC priority is assigned to the HUD or if a target designation is made with a sensor other than the radar, the MC commands radar to the AGR mode. In this mode, the radar measures the slant range to the ground along the commanded line of sight, up to 10 nmi. If a distinct discrete target is detected with no area clutter, near the command line of sight, the radar automatically acquires the target and enters the fixed target track mode. The AGR display is calligraphics only, commanded by the MC. Radar slant range, in feet, is provided for display. If radar has entered fixed target track, the range rate/MC velocity delta, in knots, is displayed. This error is provided as an advisory to the pilot to indicate when a velocity update may be required (AGR/PVU Processing and Display Schematic, A1-F18AC-742-500, WP032 00).</p> <p>The AGR mode is exited by assigning TDC priority to radar (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-500, WP018 00).</p> <p>In all A/G modes with track ability (RBGM, SEA, and GMT) all pushbutton switch labels except CHAN and DCLTR are removed during acquisition and track. In the AGR and PVU modes, the mode pushbutton switch is labeled, but inoperative (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-500, WP018 00).</p> |
| 2 | RF Channel/ Operating Condition (ØTSTR1, ØTSØP1) | See fig 1, indices 30 and 32 for description. |
| 3 | EXP1 or INTL Mode Option (ØTXP11, ØTXP12) | <p>The MAP mode selection commands radar to ground mapping configuration and enables display of the required options. Real Beam Ground Map (RBGM) is entered when MAP pushbutton switch is pressed, if a target or OAP is not designated and EXP1, EXP2 (index 4) or EXP3 (index 6) not selected. The displayed MAP is real video and the area of coverage is a function of aircraft altitude, operating radar range scale, and azimuth scan selection. Selection of EXP1 while in this mode (RBGM) commands radar to RBGM sector, and radar displays the EXP1 indicator (index 24) superimposed on the map video. This indicator is initialized at the center of the azimuth scan at midrange position. It can be slewed over the total field of view with the TDC. The calligraphic acquisition cursor (index 11) is removed while the EXP1 indicator is displayed.</p> <p>After positioning the EXP1 indicator, pressing the TDC commands radar to the doppler beam sharpened sector (DBSS) mode and the EXP1 legend is boxed. This is a high resolution mode and the total display area is that part of the MAP which was outlined by the EXP1 indicator before designation. The video raster is rotated by the MC to center the display on ground track (Composite TV Video Processing and Display Schematic, A1-F18AC-742-600, WP029 00).</p> <p>Radar range scale and antenna position are commanded by the MC, to keep the designated sector illuminated.</p> |

Figure 2. A/G Mode Radar Symbolgy (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 4 | EXP2 (ØTXP21, ØTXP22) | <p>EXP1 selection with target or OAP previously designated commands radar immediately to the DBSS mode. When the GMT or SSS mode is selected, the EXP1 legend is replaced by INTL (index 1) (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00).</p> <p>This option is resolution doppler beam sharpened mode that has higher resolution than EXP1, but lower than EXP3. Its operation is similar to that of the EXP1 and EXP3 mode options. If in RBGM with no target or OAP designated, selection of EXP2 commands RBGM patch, and the EXP2 indicator (index 20) is displayed, superimposed on the RBGM video. If in DBSS, selection of EXP2 commands DBSS patch, and the EXP2 indicator (index 20) is displayed superimposed on the DBSS video. As in EXP1, the EXP2 indicator is initialized at the center of the azimuth scan at midrange position and can be slewed over the total field of view. Pressing the TDC commands radar to the DBSP mode, from either the DBSS patch or RBGM patch mode. The total display area is that part of the MAP which was outlined by the EXP2 indicator before designation. The video raster is rotated to orient the display to track up. Radar range scale and antenna position are commanded by the MC to keep the designated patch illuminated, and the EXP2 legend is boxed.</p> <p>EXP2 selection with target or OAP previously designated commands radar immediately to the DBSP mode.</p> <p>Selection of EXP1 while in DBSP mode commands DBSS</p> <p>(Air-to-Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00).</p> |
| 5 | Angle Off Track (ØTSHD1) ØTSHD3) | <p>Angle, in degrees, and direction, left (L) or right (R), of radar antenna azimuth displacement off ground track is displayed in DBSS and DBSP (Doppler Beam Sharpened Processing and Display Schematic, A1-F18AC-742-600, WP041 00).</p> |
| 6 | EXP3 (ØTXP31, ØTXP32) | <p>This option is used to enter the highest resolution doppler beam sharpened mode. Its operation is similar to that of EXP1 and EXP2 mode options. If in RBGM with no target or OAP designated, selection of EXP3 commands RBGM patch, and the EXP3 indicator (index 27) is displayed superimposed on the RBGM video. If in DBSS, selection of EXP3 commands DBSS patch, and the EXP3 indicator (index 27) is displayed superimposed on the DBSS video. If in DBSP, selection of EXP3 commands DBSP patch, and the EXP3 indicator is displayed superimposed on the DBSP video. In EXP3, the indicator is initialized at the center of the azimuth scan at midrange position and can be slewed anywhere over the total field of view up to a maximum range of 30 nmi. Pressing the TDC commands radar to the doppler beam sharpened synthetic aperture radar (DBSSAR) mode, from either DBSP patch, DBSS patch, or RBGM patch modes.</p> <p>This is the highest resolution map mode and the total display area is that part of the MAP which was outlined by the EXP3 indicator before designation. The video raster is rotated to orient the display to track up. Radar range scale and antenna position are commanded by the MC to keep the designated patch illuminated, and the EXP3 legend is boxed.</p> |

Figure 2. A/G Mode Radar Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| | | EXP3 selection with target or OAP previously designated commands radar immediately to the DBSSAR mode. |
| | | Selection of EXP2 while in DBSSAR mode commands DBSP. Selection of EXP1 while in DBSSAR mode commands DBSS (Air to Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00). |
| 7 | PEN/FAN (ØTPEN1, ØTFAN1) | The PEN FAN option is available in MAP, SEA, GMT, EXP1, and EXP2 modes. Selection of PEN puts a box around PEN and commands radar to provide a pencil beam. The pushbutton switch is an alternate action type; deselection of PEN puts a box around FAN and commands radar to provide a fan shaped beam. Neither state is commanded at initialization (or when RSET (index 16) selected), and the radar selects either PEN or FAN as a function of aircraft altitude and radar range scale (RF Power Distribution Schematic, A1-F18AC-742-600, WP010 00). |
| 8 | ACTIVE (ØTACT1, ØTACT2, ØTACT3) | ACTIVE displayed when SIL (index 17) is selected. When ACTIVE option selected, radar transmits for one scan to update the video display. At end of scan, radar returns to silent operation and display is again frozen (RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00). |
| 9 | Time To Go (ØTTGR1) | Time to go, in seconds, is displayed if available on HUD display (HUD Display Symbology, WP007 00). |
| 10 | Radar Range Scale (ØTSGR1) | Selected radar range scale is displayed in all modes except AGR and PVU (Range Scale Select and Display Schematic, A1-F18AC-742-600, WP020 00). |
| 11 | Acquisition Cursor (ØRCRØF) | Displayed by radar in all modes when TDC priority is assigned to radar. Cursor can be positioned over whole display with TDC. The symbol is removed when inside radar border and TDC is pressed, and replaced by the in video cursor (index 13). After a designation is made with the in video cursor, the acquisition cursor is returned to the display in the stowed (upper left) position. Not displayed when radar tracking or radar mode is TA, AGR, or PVU (Composite TV Video Processing Schematic, A1-F18AC-742-600, WP029 00). |
| 12 | Range Increment (ØTRNGU) | Arrow is displayed in TA, RBGM, SEA, GMT, and GMT/MAP modes. Not displayed when target is designated. Operation is identical to that described in figure 1, index 8 (Range Scale Select and Display Schematic, A1-F18AC-742-600, WP020 00). |
| 13 | In-Video Cursor (ØRCURS, ØRAGAQ, ØRFØLØF) | Displayed by radar when an acquisition is in process in RBGM, SEA, GMT, and GMT/MAP modes. Symbol is removed when TDC is released and replaced by the stabilization cue (index 32), indicating the stabilized position of radar antenna. Radar displays the in-video cursor if commanded by MC to follow the cursor, Cursor Position Request, or A/G acquisition command. The follow cursor command is produced in those modes with azimuth scan options (RBGM, RBGM sector, RBGM patch, SEA and GMT) by positioning the acquisition cursor (index 11) outside the radar border in the lower left corner of the display. When the cursor is moved back inside the radar border, the in-video cursor is displayed, and may be used for target or OAP designation. (Composite TV Video Processing Schematic, A1-F18AC-742-600, WP029 00). |

Figure 2. A/G Mode Radar Symbology (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 14 | Range Decrement (ØTRNGD) | Arrow is displayed in TA, RBGM, SEA, GMT, and GMT/MAP modes. Not displayed when target designated. Operation is identical to that described in figure 1, index 8 (Range Scale Select and Display Schematic, A1-F18AC-742-600, WP020 00). |
| 15 | FRZ Option (ØTFRZ1) | <p>The FRZ option is available in all modes except TA, PVU, and AGR. Selection of the FRZ option causes the MC to command radar to freeze the video display. The radar continues scanning (except when the display has been frozen by the silent (SIL) option as described by (index 17), but does not update the video display. Also, the FRZ option is boxed when selected. Selection of FRZ (when SIL not selected) causes the video to be updated normally and the FRZ option to be boxed.</p> <p>When the SIL option (index 17) is boxed, selection of boxed FRZ option commands the radar to blank the video within the tactical display area. The boxed FRZ option continues to be displayed until either an active scan is commanded by selection of the active option, or until SIL is deselected (Erase/Freeze and Target Aging Display Schematic, A1-F18AC-742-600, WP017 00).</p> |
| 16 | RSET (ØTTRS1) | The reset option is available in all A/G radar modes except PVU, AGR, and TA. Option is removed in MAP, GMT, and SEA modes after target designation. Selection commands radar to re-initialize the video gain, pencil or fan beam selection, and the antenna elevation angle to provide best coverage and display for the selected range scale and aircraft altitude (Velocity Vector, Horizon Line, DCLTR and RSET Select and Display Schematic, A1-F18AC-742-600, WP019 00). |
| 17 | SIL (ØTSSI1) | The silent option is available in all A/G radar modes except TA and PVU. When SIL is selected, the radar video display is frozen, FRZ option (index 16) is boxed. |
| 18 | Altitude (ØTSAL1) | Displayed if available on HUD display (HUD Display Symbology, WP007 00). |
| 19 | DCLTR (ØTSCHN) | The declutter option is available in all radar modes. Selection removes horizon line and velocity vector from the display and DCLTR legend is boxed. |
| 20 | EXP2 Indicator | Displayed in DBSS patch and RBGM patch mode, by radar. See index 4 for description. |
| 21 | CHAN (ØTSCHN) | The channel option is available in all radar modes. Selection of CHAN option replaces CHAN legend with the AUTO-MAN legend, with either AUTO or MAN being boxed, indicating whether radar transmission channel selection is being made manually or by the Radar Target Data Processor CP-1326/APG-65. At the same time the DCLTR legend is replaced by a digital display of any one of eight AUTO channel sets or any of the individual channels if MAN is selected. If AUTO is selected and boxed, the mission computer will display a letter (or Asterisk if the wide channel set) indicating the channel set. Pressing the AUTO-MAN pushbutton switch causes the alternate mode (AUTO or MAN) to be boxed. Manual selection of transmitter channels is indicated by channel number changing as pushbutton switch (formerly DCLTR) is pressed. No pushbutton switch action for a period of five seconds returns the CHAN-DCLTR display and options (Channel Select and Display Schematic, A1-F18AC-742-600, WP011 00). |

Figure 2. A/G Mode Radar Symbology (Sheet 7)


| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 22 | LST Mode Cue (ØTLSTA) | Displayed if cue on HUD display (HUD Display Symbology, WP007 00). |
| 23 | Video Gain Setting (ØTGAIN) | Displayed in all map modes and in GMT/MAP. Indicates relative video gain of the radar receiver. Numbers range from 1 to 9, representing a range of -12 to +12 db in 3 db increments. Display varies as a function of MAP GAIN switch setting on Map Gain Control Panel Assembly (Air-to-Ground Mode Display Processing Schematic, A1-F18AC-742-600, WP033 00). |
| 24 | EXP1 Indicator | Displayed in RBGM sector mode by radar. See index 3 for description. |
| 25 | FAST | The FAST option is available in the DBSS and DBSP modes. Selection causes the radar to inhibit the 4 look post detection integration process, providing faster update of video, but decreased resolution. Legend appears with box when selected (Doppler Beam Sharpened Processing Display Schematic, A1-F18AC-742-600, WP041 00). |
| 26 | Mach (ØTSMC1) | Displayed if available on HUD display (HUD Display Symbology, WP007 00). |
| 27 | Airspeed (ØTSPD1) | Displayed if available on HUD display (HUD Display Symbology, WP007 00). |
| 28 | EXP3 Indicator | Displayed in DBSS patch, DBSP patch and RBGM patch mode by radar. See Index 6 for description. |
| 29 | GN  (ØTRGNX, ØTGN5) | Provides increment and decrement pushbuttons to change radar map mode value. The existing relative map gain value is displayed at the GN pushbutton. (Doppler Beam Sharpened Processing Display Schematic (A1-F18AC-742-600, WP041 00). |
| 30 | Range /Azimuth Grid (ØTNARC, ØTAZLN) | Displayed in SEA, RBGM, and GMT modes. In search, the MC displays the azimuth grid lines and the radar displays the range grid arcs. The azimuth lines are displayed at 0°, ±30°, and ±60°. The four range arcs are separated to divide the selected ranges into four equal segments. When the radar is in a track mode, the MC displays the range arcs with azimuth grid lines (Composite TV Video Processing Schematic, A1-F18AC-742-600, WP029 00). |
| 31 | Antenna Elevation Scale and Caret (ØTSENA) | Antenna elevation scale displayed by MC in all modes except AGR and PVU. Caret represents radar antenna elevation and is displayed by radar (Air-to-Ground Antenna Control Functional Schematic, A1-F18AC-742-600, WP016 00). |
| 32 | Stabilization Cue (ØRSTDS) | Displayed by radar after in-video cursor designation when radar mode is TA or any TDC compatible mode and not in track (see index 14). |
| 33 | Target | Displayed by radar when a ground target is detected. Horizontal position indicates relative azimuth. Vertical position indicates range. |
| 34 | TDC Diamond (ØTSTDIX) | Displayed when TDC priority is assigned to radar (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00). |

Figure 2. A/G Mode Radar Symbology (Sheet 8)






| Index No. | Display Element (Ref Code) | Description |
|---|--|--|
| 35 | OVRHT (ØTSØHT) | Displayed and flashed when mission computer system receives radar overheat message. OVRHT is not flashed when EMERG is selected on SNSR pod control box assembly (Radar Liquid Coolant and Cooling Air Schematic, A1-F18AC-742-600, WP007 00). |
| 36 | Track/Memory Cue (ØTAGT1) | TRACK is displayed when radar is tracking a surface target. MEM is displayed if radar is in track memory (Memory Track Display Schematic, A1-F18AC-742-600, WP028 00). |
| 37 | Optimum Antenna Elevation | Symbol is displayed by radar when A/G antenna elevation scale is displayed. Indicates the antenna elevation angle which radar has computed to provide best coverage. Based on range scale, beam pattern selected, and aircraft altitude (Air-to-Ground Antenna Control Functional Schematic, A1-F18AC-742-600, WP016 00). |
| 38 | AIR (ØTAIR1) | Displayed in NAV mode. Pushbutton switch causes initialization of Air-to-Air mode, RWS, 40 mile range, and 120° azimuth scan (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00). |
| 39 | Break-X (ØTABKX) | Break-X displayed and flashed if on HUD display (HUD Display Symbolology, WP007 00). TA FAIL and a break-X are displayed in the center of the indicator  if the mode fails,  or INS or MC1 fails (Air-to-Ground Mode Selection Schematic, A1-F18AC-742-600, WP018 00). |
| 40 | Target Course and Speed (ØTSTKX, ØTSCPX, ØTSDTX) | Indicates speed in Knots to left and course to right of radar target. |
| <p style="text-align: center;">LEGEND</p> <p> Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000).</p> <p> Digital Data Computer CONFIG/IDENT Number 87X (A1-F18AC-SCM-000).</p> <p> Digital Data Computer CONFIG/IDENT Number 92A AND UP (A1-F18AC-SCM-000).</p> | | |

Figure 2. A/G Mode Radar Symbology (Sheet 9)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

RADAR DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|----------|
| A/A Mode Radar Symbology (Figure 1) | 5 |
| A/G Mode Radar Symbology (Figure 2) | 36 |
| Acceleration Vector (Figure 1, Index 12) | 15 |
| Acquisition Cursor (Figure 1, Index 79) | 32 |
| (Figure 2, Index 19) | 47 |
| Acquisition Point Cue (Figure 1, Index 87) | 34 |
| ACM (Figure 1, Index 3) | 12 |
| ACTIVE (Figure 1, Index 60) | 28 |
| (Figure 2, Index 4) | 44 |
| AGC/Threshold Level (Figure 1, Index 22) | 18 |
| AIR (Figure 2, Index 35) | 49 |
| Airspeed (Figure 1, Index 21) | 18 |
| (Figure 2, Index 25) | 47 |
| Altitude (Figure 1, Index 72) | 30 |
| (Figure 2, Index 21) | 47 |
| AMRAAM Missile Cue (Figure 1, Index 38) | 23 |
| Angle Off Track or Magnetic Heading (Figure 2, Index 16) | 46 |
| Antenna Elevation Scale and Caret (Figure 2, Index 28) | 48 |
| AOT (Figure 1, Index 67) | 29 |
| AOT Target (Figure 1, Index 8) | 13 |
| ASE Circle (Figure 1, Index 48) | 25 |
| Aspect Angle Pointer (Figure 1, Index 12) | 15 |
| Aspect Vector, Target Course and Speed (Figure 2, Index 37) | 49 |
| AUTO/MAN/BIAS Scan Center (Figure 1, Index 61) | 28 |
| AUTO/MAN QL (Figure 1, Index 64) | 29 |
| Azimuth Grid (Figure 1, Index 75) | 31 |
| (Figure 2, Index 27) | 48 |
| Azimuth Scan (Figure 1, Index 45) | 24 |
| (Figure 2, Index 47) | 51 |
| B-Sweep (Figure 1, Index 19) | 18 |
| Break-X (Figure 1, Index 71) | 30 |
| (Figure 2, Index 36) | 49 |
| BURST (Figure 2, Index 17) | 46 |
| CHAN/AUTO/MAN (Figure 1, Index 42) | 50 |
| (Figure 2, Index 10) | 45 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Channel Fail X (Figure 1, Index 28) | 20 |
| (Figure 2, Index 14) | 46 |
| COLOR (Figure 1, Index 53) | 26 |
| DATA Option (Figure 1, Index 41) | 23 |
| (Figure 2, Index 9) | 45 |
| DCLTR (Figure 2, Index 40) | 50 |
| DCLTR1/DCLTR2 (Figure 1, Index 55) | 27 |
| Differential Altitude (Figure 1, Index 26) | 20 |
| DT2 Target (Figure 1, Index 11) | 14 |
| Dugout (Figure 1, Index 66) | 29 |
| ECCM (Figure 1, Index 58) | 28 |
| (Figure 2, Index 43) | 50 |
| Elevation Bar Scan Option (Figure 1, Index 2) | 12 |
| Elevation Scale and Caret (Figure 1, Index 25) | 19 |
| ERASE (Figure 1, Index 6) | 13 |
| EXP (Figure 1, Index 76) | 31 |
| EXP1 (Figure 2, Index 2) | 43 |
| EXP1 Corral (Figure 2, Index 23) | 47 |
| EXP2 (Figure 2, Index 2) | 43 |
| EXP2 Corral (Figure 2, Index 22) | 47 |
| EXP3 (Figure 2, Index 2) | 43 |
| EXP3 Corral (Figure 2, Index 26) | 47 |
| FAST (Figure 2, Index 11) | 45 |
| FLOOD (Figure 1, Index 88) | 34 |
| FLOOD Option (Figure 1, Index 68) | 29 |
| FRZ Option (Figure 2, Index 6) | 44 |
| GN (Figure 2, Index 42) | 50 |
| Gray Scale (Figure 2, Index 44) | 51 |
| Heading (Figure 1, Index 5) | 12 |
| HITS (Figure 1, Index 30) | 21 |
| Horizon Line (Figure 1, Index 90) | 35 |
| (Figure 2, Index 39) | 50 |
| INT Cue (Figure 1, Index, 46) | 25 |
| IN RNG (Figure 1, Index 73) | 30 |
| In-Video Bearing Cursor and Range Arc (Figure 2, Index 20) | 47 |
| Intensity Scales, TA Display (Figure 2, Index 45) | 51 |
| Iron Cross (Figure 1, Index 63) | 29 |
| Introduction | 4 |
| Launch Zone (Figure 1, Index 35) | 22 |
| LDF Option (Figure 1, Index 56) | 27 |
| Low Priority Target (Figure 1, Index 32) | 21 |
| LST Tracking Cue (Figure 2, Index 46) | 51 |
| LTWS Option (Figure 1, Index 24) | 19 |
| L&S Target (Figure 1, Index 11) | 14 |
| Mach (Figure 1, Index 77) | 31 |
| (Figure 2, Index 24) | 47 |
| Map Video Gain Value (Figure 2, Index 41) | 50 |
| Maximum Aspect Cue (Figure 1, Index 44) | 24 |
| MEM (Figure 2, Index 33) | 49 |
| MEM Cue (Figure 2, Index 33) | 49 |
| Missile Active Cue (Figure 1, Index 39) | 23 |
| Missile Time of Flight (Figure 1, Index 43) | 24 |
| Mode Fail X (Figure 1, Index 50) | 25 |
| MODE Option (Figure 1, Index 20) | 18 |
| Mode Select (A/G) (Figure 2, Index 1) | 41 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| MSI Option (Figure 1, Index 54) | 27 |
| NAVMP (Figure 2, Index 12) | 45 |
| NCTR (Figure 1, Index 62) | 28 |
| Operating Condition (Figure 1, Index 1) | 12 |
| (Figure 2, Index 13) | 46 |
| Optimum Antenna Elevation (Figure 2, Index 34) | 49 |
| Overflow Data (Figure 1, Item 85) | 34 |
| OVRHT (Figure 1, Index 69) | 30 |
| (Figure 2, Index 32) | 48 |
| Passive Ranging Cues (Figure 1, Index 33) | 21 |
| PDI (Figure 1, Index 23) | 19 |
| PEN FAN (Figure 2, Index 3) | 43 |
| PRF (Figure 1, Index 23) | 18 |
| RLOft (Figure 1, Index 34) | 21 |
| RMAX (Figure 1, Index 34) | 21 |
| RMEM (Figure 1, Index 17) | 17 |
| RMEM XX (Figure 1, Index 17) | 17 |
| RMIN (Figure 1, Index 40) | 23 |
| R-No Escape (Figure 1, Index 37) | 22 |
| Radar Acquisition Mode (Figure 1, Index 29) | 20 |
| Radar Operating Mode (Figure 1, Index 49) | 25 |
| Radar Range (Figure 1, Index 9) | 13 |
| Radar Range Scale (Figure 2, Index 18) | 46 |
| RAID (Figure 1, Index 17) | 17 |
| (Figure 1, Item 86) | 34 |
| RAID Target (Figure 1, Index 83) | 33 |
| Range Decrement Arrow (Figure 1, Index 10) | 14 |
| Range Increment Arrow (Figure 1, Index 10) | 14 |
| Range Increment/Decrement (A/G) (Figure 2, Index 5) | 44 |
| Range Grid (Figure 2, Index 27) | 48 |
| Range/Velocity Grid (Figure 1, Index 15) | 16 |
| Ranked Trackfiles (Figure 1, Index 16) | 16 |
| Raw Hit Target (Figure 1, Index 84) | 33 |
| RF Channel (Figure 1, Index 27) | 20 |
| (Figure 2, Index 15) | 46 |
| RSET (Figure 1, Index 14) | 16 |
| (Figure 2, Index 7) | 44 |
| RTS (Figure 1, Index 80) | 33 |
| SCAN RAID (Figure 1, Index 86) | 34 |
| Selected Waypoint (Figure 1, Index 74) | 31 |
| SET (Figure 1, Index 13) | 15 |
| SHOOT (Figure 1, Index 18) | 17 |
| Shot Quality (Figure 1, Index 44) | 24 |
| SIL Option (Figure 1, Index 4) | 12 |
| (Figure 2, Index 8) | 44 |
| Sparrow Max Seeker Range (Figure 1, Index 36) | 22 |
| Sparrow Missile Cue (Figure 1, Index 38) | 23 |
| Speed Gate Options (Figure 1, Index 57) | 27 |
| SPOT (Figure 1, Index 17) | 16 |
| Stabilization Cue (Figure 2, Index 29) | 48 |
| Steering Dot (Figure 1, Index 47) | 25 |
| STOW (Figure 1, Index 59) | 28 |
| SURF (Figure 1, Index 78) | 32 |
| Synthetic Target/OAP Blip (Figure 2, Index 30) | 48 |
| TA FAIL (Figure 2, Index 36) | 49 |
| Target Aging (Figure 1, Index 51) | 26 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Target Course, Speed, and Aspect Vector (Figure 2, Index 37) | 49 |
| Target ID Data (Figure 1, Index 7) | 13 |
| Target Range (Figure 1, Index 70) | 30 |
| TDC Assignment Symbol (Figure 1, Index 82) | 33 |
| (Figure 2, Index 31) | 48 |
| Time To Active (Figure 1, Index 39) | 50 |
| Time To Go (Figure 2, Index 17) | 46 |
| Track/Memory Cue (Figure 2, Index 17) | 46 |
| Tracked Target Heading (Figure 1, Index 81) | 33 |
| TRAIN (Figure 1, Index 91) | 35 |
| TWS Options (Figure 1, Index 68) | 29 |
| Velocity Search Scale (Figure 1, Index 9) | 13 |
| Velocity Vector (Figure 1, Index 89) | 34 |
| (Figure 2, Index 38) | 50 |
| Waypoint Target Bearing and Range (Figure 1, Index 65) | 29 |
| Weapon Type and Quantity (Figure 1, Index 31) | 21 |
| 1 LOOK (RAID) (Figure 1, Index 52) | 26 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to Stores displays. The illustrations are not meant to

represent typical displays, but to provide general appearance and positioning of the elements which make up Stores displays. The descriptions may contain schematic references which show the development of the display elements.

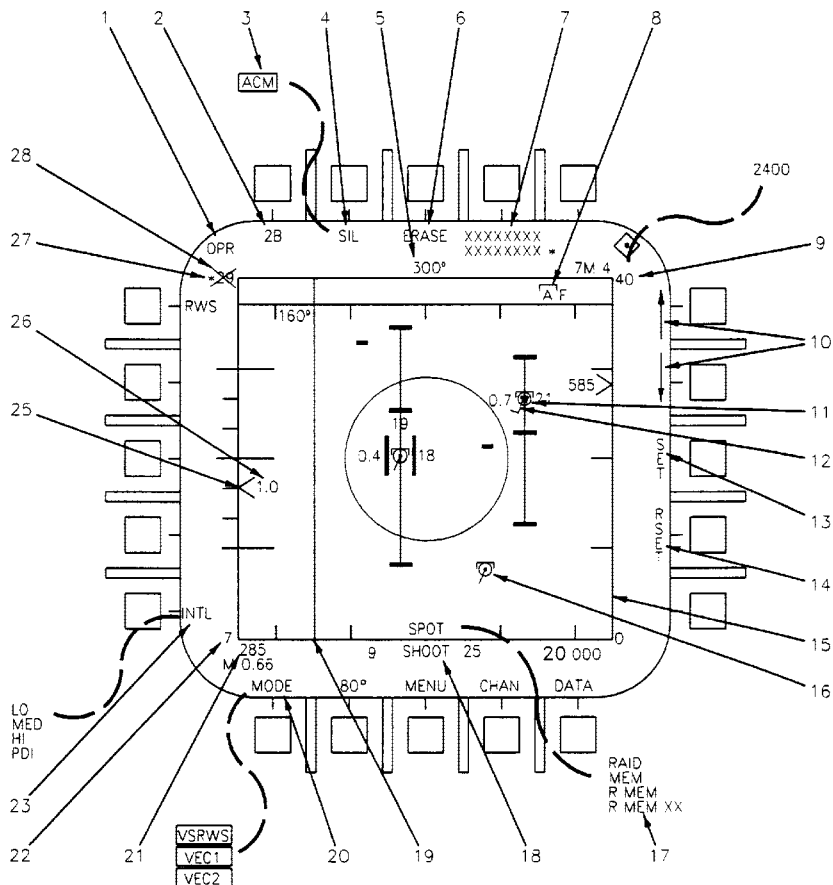


Figure 1. A/A Mode Radar Symboly (Sheet 1)

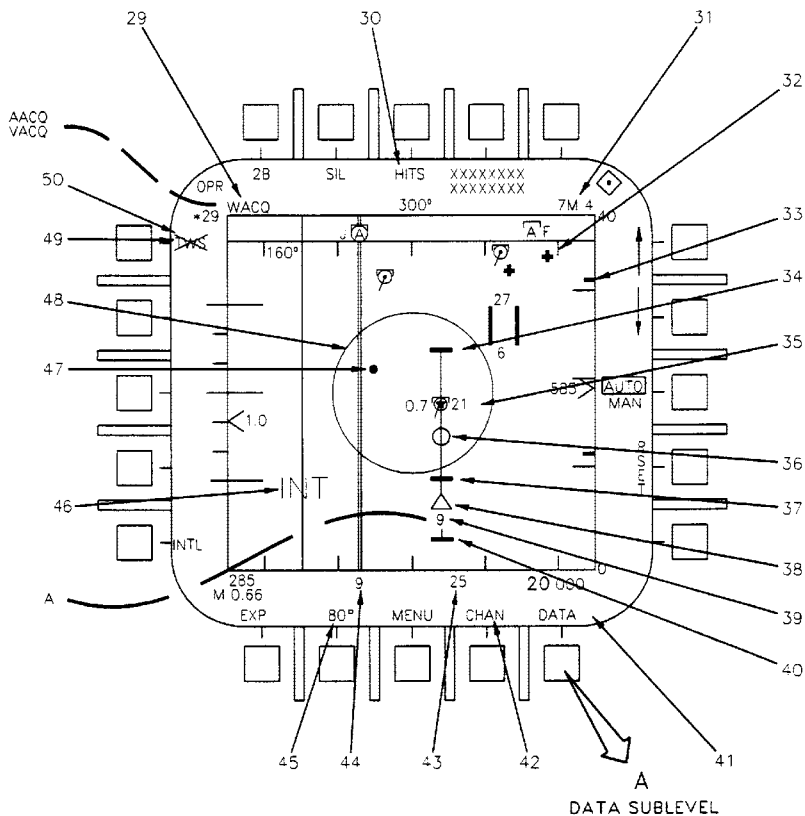
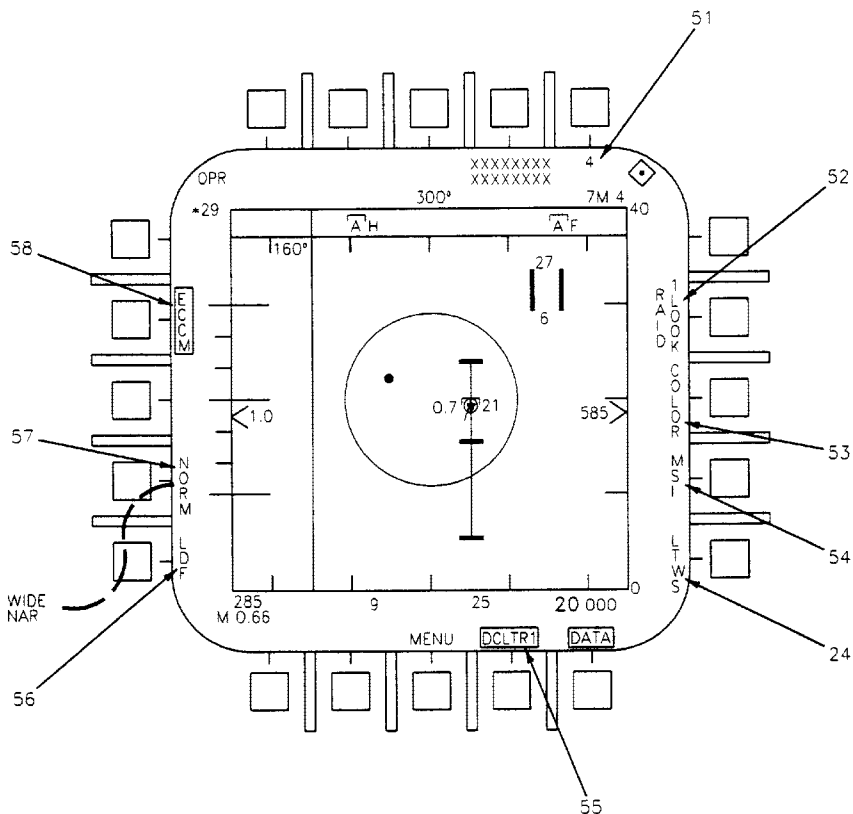


Figure 1. A/A Mode Radar Symbology (Sheet 2)



A

Figure 1. A/A Mode Radar Symboly (Sheet 3)

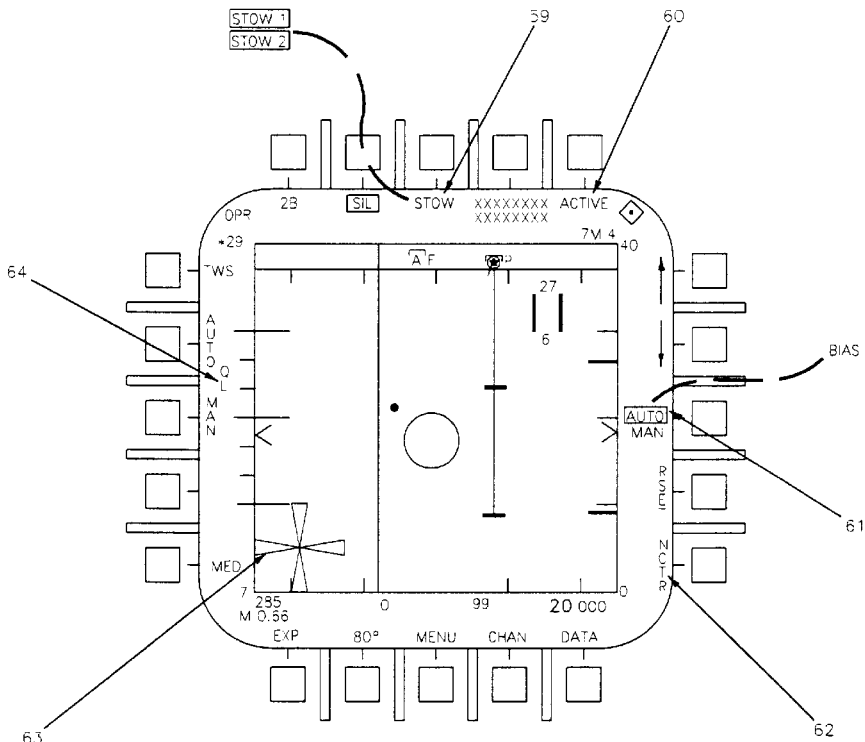


Figure 1. A/A Mode Radar Symbology (Sheet 4)

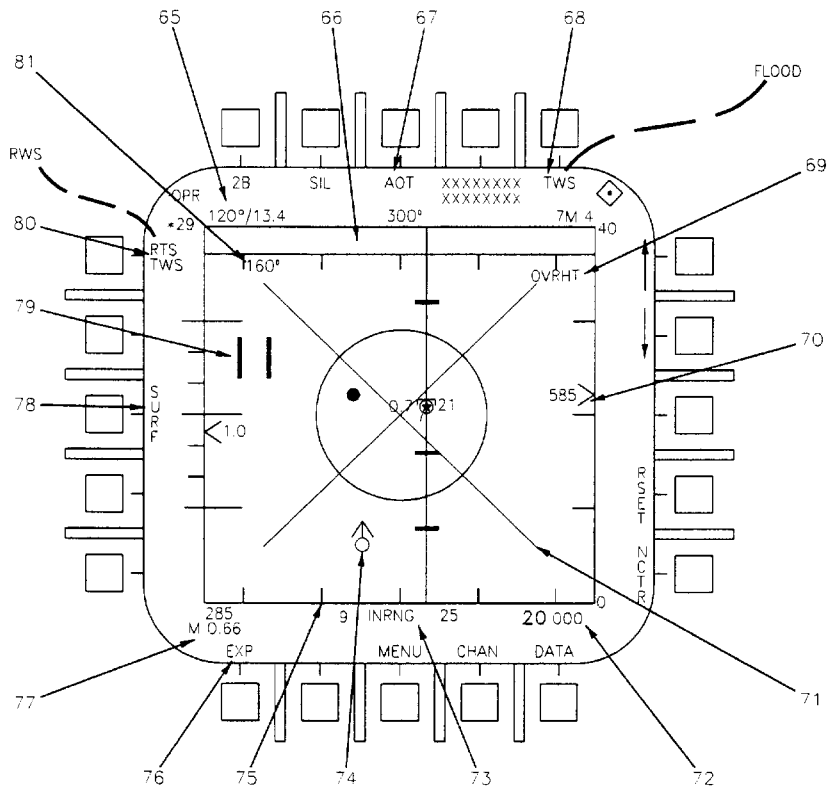


Figure 1. A/A Mode Radar Symbology (Sheet 5)

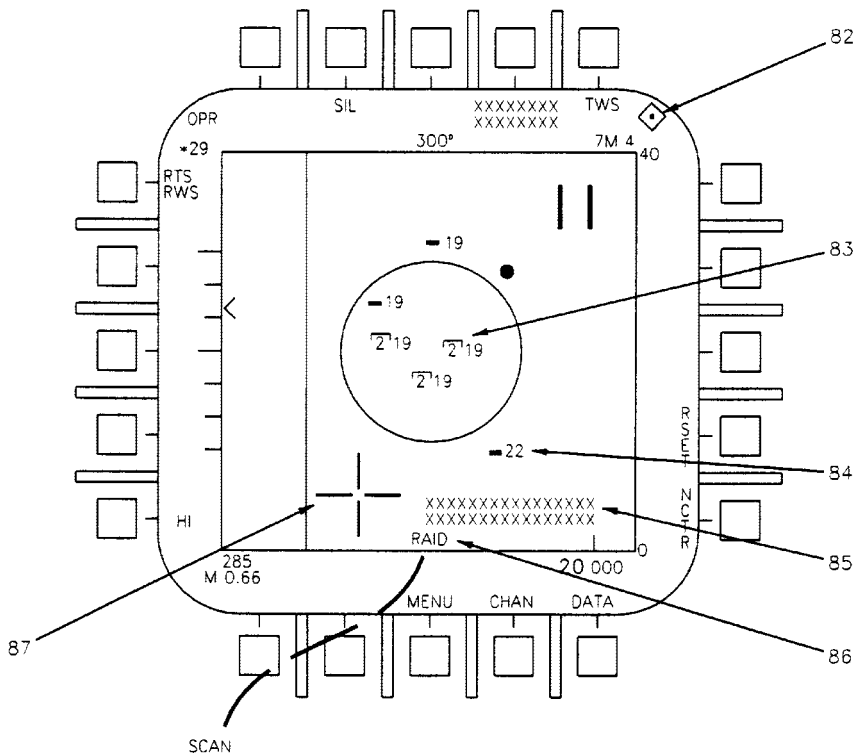


Figure 1. A/A Mode Radar Symbology (Sheet 6)

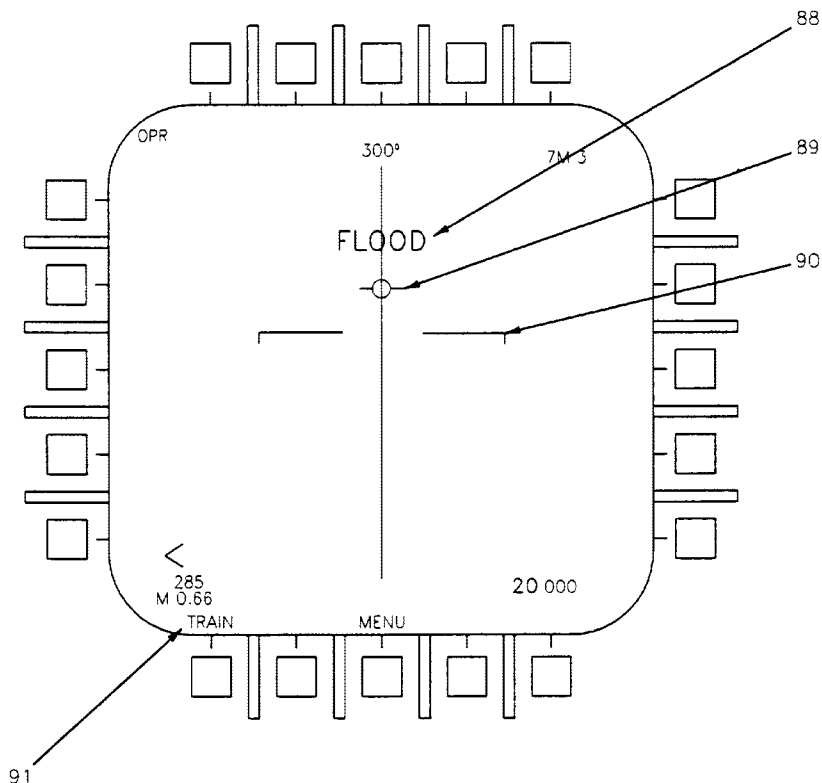


Figure 1. A/A Mode Radar Symbology (Sheet 7)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | Operating Condition | <p>When digital data computer and radar system are not communicating, RDY is displayed. Otherwise, operating condition of radar of STBY (standby), OPR (operate), or EMER (emergency) is displayed. TEST is displayed during power-up or initiated BIT</p> <p>( Operating Status Select and Display Schematic, A1-F18AC-742-500, WP008 00</p> <p>( Operating Status Select and Display Schematic, (A1-F18AH-742-500, WP008 00).</p> |
| 2 | Elevation Bar Scan Option | <p>Displays elevation bar scans of 1B, 2B, 4B, or 6B in all A/A radar modes except STT, ACM, and TWS SCAN RAID modes. The elevation bar scan Scan Option options are HOTASable. Cycling the pushbutton switch causes the elevation bar scan to step from 1B, 2B, 4B, to 6B, and back to 1B, 1B is not a selectable option in TWS mode. Bar spacing is normally 1.3°. If TWS mode with 2B selected, spacing is 2°. If RWS or VS mode with 5 nm selected, spacing is 4.2°</p> <p>( Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00</p> <p>( Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |
| 3 | ACM Option | <p>Replaces SIL option when sensor control switch is moved forward or gun is selected by the weapon select switch (ACM condition). Cue is always boxed when displayed. When gun is not selected pressing the pushbutton while ACM is boxed deselects the ACM mode and SIL option is restored. Pressing the undesignate switch also exits the ACM mode. When gun is selected, pressing the pushbutton while ACM is boxed has no effect</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00)</p> |
| 4 | SIL Option | <p>Displayed in RWS, TWS, STT, and VS modes but not in any RWS sub-modes or in ACM condition. Option is temporarily removed during HOTAS elevation bar scan selections when the selections cause the window to spread</p> <p>( RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00</p> <p>( Erase, Freeze and Target Aging Display Schematic, A1-F18AH-742-500, WP024 00).</p> |
| 5 | Heading | <p>Displayed to indicate magnetic heading to the nearest degree when available on HUD display. Indicates true heading if TRUE HDG option selected on A/C DATA sublevel display</p> <p>(HUD Display Symbology, WP007 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 8)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 6 | ERASE | <p>The ERASE option commands the radar to erase the current target history. This means that any radar blip that is currently on the format is immediately removed upon selection of this option. Subsequent hits will be displayed and aged based upon the selected age code. This option is selectable via HOTAS</p> <p>( 1) Erase, Freeze and Target Aging Display Schematic, A1-F18AC-742-500, WP017 00</p> <p>( 2) Erase, Freeze and Target Aging Display Schematic, A1-F18AH-742-500, WP024 00).</p> |
| 7 | Target ID Data | <p>Displays primary ID source in precedence order: by pilot, radar/NCTR, and HARM. Asterisk at end of ID line indicates data overflow. Overflow data is displayed on the lower right of the display field. Not displayed in VS or FLOOD mode</p> <p>( 1) A1-F18AC-742-550/(C)</p> <p>( 2) A1-F18AH-742-550/(C)).</p> |
| 8 | AOT Target | <p>Targets which are angle track only are displayed for all modes except VS and STT RAID at their relative azimuth position in the dugout area at the top of the attack display. The target is represented by a HAFU symbol with an A target priority designation and all the symbology for an L&S target.</p> |
| 9 | Radar Range | <p>Displayed down right side in RWS, TWS, and STT modes. Range scale is in 5, 10, 20, 40, 80, or 160 nautical miles. When EXP is selected the range scale indicates maximum (top) and minimum (bottom) range of the display grid. ACM is deselected when a different range is selected in STT or RWS mode and gun is not selected. Automatic range scale adjustment (ARSA) is disabled in TWS. The 5 nm range is not selectable in RWS. The 5 and 10 nm range is not selectable in TWS</p> <p>( 1) Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00</p> <p>( 2) Range Scale Select and Display Schematic, A1-F18AH-742-500, WP036 00).</p> |
| | Velocity Search Scale | <p>Displayed in VS mode. Either 800 or 2400 is displayed at the top of the range scale to indicate the targets contribution to the closing velocity along the targets line of sight vector relative to the aircrafts line of sight vector. Increment and decrement arrow pushbutton switches are used to select the ranges. The up arrow selects 2400 and the down arrow selects 800. VS mode is selectable from HOTAS only. Vc is displayed to the left of the cursor when the cursor is placed over a raw hit. When VS is selected. MSI is disabled and MSI trackfiles and HAFU dugout are removed</p> <p>( 1) Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00</p> <p>( 2) Range Scale Select and Display Schematic, A1-F18AH-742-500, WP036 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 9)







| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 10 | Range Increment Arrow | <p>Displayed to provide selection of next higher operating range by pressing the pushbutton switch. Range increase is also HOTAS selectable. When 160 mile range is selected, pushbutton switch has no effect. The increment arrow is displayed for manual control except when the display is expanded as in TWS SCAN RAID or any expanded mode. When in STT, L&S, and/or DT2 targets have valid range data, the digital data computer automatically controls range scale as required by ARSA (automatic range scale adjustment). ARSA can be overridden by the pilot selected range scale. Return to ARSA is done by pressing the RSET pushbutton switch which is also HOTAS selectable. If the STT, L&S, and DT2 targets are all angle-only track (AOT) targets, range is manually selected. When any of the STT, L&S, or DT2 targets changes from AOT to range resolved, ARSA is enabled. In VS mode, the 2400 knot scale is selected if range scale is 800 knots. Range increment arrow is not displayed if STT is selected from an ACM mode</p> <p>( Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00</p> <p>( Range Scale Select and Display Schematic, A1-F18AH-742-500, WP036 00).</p> |
| | Range Decrement Arrow | <p>Displayed to provide the opposite of the increment arrow in all like selections</p> <p>( Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00</p> <p>( Range Scale Select and Display Schematic, A1-F18AH-742-500, WP036 00).</p> |
| 11 | L&S/DT2 Target | <p>The L&S target has the highest priority, regardless of its assigned rank. The L&S target is distinguished from the other filed targets on the format by a HAFU containing a star in place of the rank number with mach and altitude numerics displayed adjacent to it, launch range envelope markers displayed above and below the target at the same azimuth position, and target range and range rate indicators displayed at the same range as the target. The allowable steering error (ASE) circle and steering dot computations are based upon L&S target motion and attack geometry. The L&S target's Vc is not displayed on the attack format when the L&S is near the right edge of the tactical region in order to avoid interference between the L&S target HAFU symbology and the L&S target's Vc.</p> <p>A Second Designated Target (DT2) can be designated to allow for an improved multiple target attack. The DT2 target is indicated by a HAFU containing a diamond in place of the rank number. Like the L&S, the MC will typically display mach, altitude, and launch zones for the DT2 target.</p> <p>( TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00</p> <p>( Air to Air Search Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP016 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 10)

Figure 1. A/A Mode Radar Symboly (Sheet 11)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 14 | RSET | <p>Displayed any time radar mode is not acquisition or flood. The option is HOTAS selectable. RSET removes any existing DT2 target designation. RSET deselects expanded mode, deselects raid mode, deselects HITS, clears any radar command scan centering bias, and restores automatic range scale adjustment when it has been overridden. RSET legend is boxed for 2 seconds when selected. In MSI, trackfiles are revised as below:</p> <ol style="list-style-type: none"> 1. When the radar mode is in STT, selecting RSET designates the STT target as the L&S target. 2. When the FLIR is in A/A autotrack and radar is not in STT, selecting RSET designates the FLIR autotrack target as the L&S target. 3. When an L&S target exists but none of the sensors are in STT, selection of RSET completely removes any L&S designation. A trackfile is not L&S designated unless the undesignated pushbutton is pressed or normal trackfile designations are done with the TDC and cursor action. <p>( Velocity Vector, Horizon Line, DCLTR, and RSET select and Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 15 | Range/Velocity Grid | <p>In RWS and TWS, grid lines represent range and azimuth. A five line grid is displayed when operating in a 5 mile or 10 mile radar range scale. A four line grid is displayed for all other range selections. The range scale is the right vertical border of the grid. The operating range (5, 10, 20, 40, 80, or 160) is displayed at the top of the scale. In the VS mode, the scale represents target velocity, the top of scale being 2400 knots. In the RAID mode, the grid lines are not displayed</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AH-742-500, WP026 00).</p> |
| 16 | Ranked Trackfiles | <p>Priority number three through eight MSI trackfiles are displayed as numbered filed targets with target aspect angle pointer</p> <p>( TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00</p> <p>( Air to Air Search Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP016 00).</p> |
| 17 | SPOT | <p>Displayed when radar is in spotlight mode</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Air Track Processing and Display Functional Schematic, A1-F18AH-742-500, WP018 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 12)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 18 | MEM/ RMEM/ RMEM XX | <p>Displayed to indicate missed trackfile frames and radar relying on trackfile RMEM is displayed when the radar is a contributor to the MSI trackfile that is designated the L&S trackfile. When the radar is extrapolating a target trackfile, the radar contributor circle is flashed. When the radar is the sole contributor, the TD box is segmented and the entire HAFU is flashed. RMEM is followed with a two digit age state to indicate how long the trackfile was extrapolated. AMRAAM SHOOT cue is disabled.</p> |
| | | <p>Memory cue (MEM) displayed when radar is extrapolating target track data ( Memory Track Display Schematic, A1-F18AC-742-500, WP028 00  Memory Track Display Schematic, A1-F18AH-742-500, WP037 00).</p> <p>Time in track memory (track memory time) in seconds is displayed when radar is extrapolating target track data (limited to 99 seconds) ( Memory Track Display Schematic, A1-F18AC-742-500, WP028 00  Memory Track Display Schematic, A1-F18AH-742-500, WP037 00).</p> |
| | RAID/SCAN RAID | <p>STT RAID mode is entered and the MC displays RAID when the RAID button is depressed while the radar is in STT with a full track on a target whose range is greater than 5NM. TWS SCAN RAID mode is entered and the MC displays SCAN RAID when the RAID button is pressed while the radar is in TWS with an L&S target whose range is greater than 5NM. RMEM and MEM cuing have precedence over the display of RAID and SCAN RAID RAID ( RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00) ( RAID Processing and Display Functional Schematic, A1-F18AH-742-500, WP014 00).</p> <p>SCAN RAID ( TWS Targets Launch Range and Steering Target Display, A1-F18AC-742-500, WP021 00  Air to Air Search Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP016 00).</p> |
| | SHOOT | <p>Shoot cue displayed when on HUD display (HUD Display Symbology, WP007 00). SHOOT cue is removed when radar is in active RWS which includes AMRAAM launches in command inertial active (CIA) or STT RAID mode (Lock/Shoot Light Schematic, A1-F18AE-740-500 WP038 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 13)









| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 19 | B-Sweep | Provides real time display of radar antenna azimuth position. In VS mode, top of sweep represents 2400 knots of target closing velocity with 0 knots at the bottom. In all other A/A modes, top of sweep indicates maximum value of operating range scale, in nautical miles and 0 range at the bottom. Sweep is enabled and positioned by radar ( B-Sweep and Elevation Caret Positioning and Display Schematic, A1-F18AC-742-500, WP024 00  Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00). |
| 20 | MODE Option | If the radar is in active RWS and is not in a forced LDF condition, the MODE option is displayed. Selection of the MODE option allows toggling through the RWS submodes ( Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 03  Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00) |
| 21 | Airspeed | Displayed in all radar modes when available on HUD display. When 5 mile range scale is selected, airspeed digits are also displayed in large numbers in upper left of display (HUD Display Symbology, WP007 00) (Air Data Computer Functional Schematic, A1-F18AC-560-500, WP004 00). |
| 22 | AGC/ Threshold Level (Sensitivity Indicator) | Radar sensitivity is indicated by a number between 1 and 9 in all modes except STT. Lowering the sensitivity settings reduces the maximum range at which the radar can detect, acquire, and track targets. A 1 (one) indicates minimum sensitivity and a (9) indicates maximum sensitivity. ( Set Option and Sensitivity Indicator Processing and Display Schematic, A1-F18AC-742-500, WP042 00  Set Option and Sensitivity Indicator Processing and Display Functional Schematic, A1-F18AH-742-500, WP021 00). |
| 23 | PRF | Radar operating PRFs of HI, MED, LO, INTL, PDI, or PDI are displayed in all A/A modes. LO and PDI are not manually selectable and they are automatically displayed when commanded by the radar. When LO is displayed, pressing the pushbutton switch defaults PRF to HI. When HI is displayed, continued pressing of the pushbutton switch cycles the options from HI, MED, INTL, and back to HI. When INTL is displayed, the radar automatically switches PRF alternately between HI and MED. When TWS is selected, PRF is initialized in INTL. When in VS mode, HI is always displayed and cannot be deselected. When in track, manual selection is not available ( PRF Selection and Display Functional Schematic, A1-F18AC-742-500, WP012 00  PRF Selection and Display Functional Schematic, A1-F18AH-742-500, WP025 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 14)







| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| | PDI | <p>Displayed when radar is in missile compatible PRF for Sparrow launch. Regardless of any other PRF selected or automatically displayed, PDI is always displayed after missile launch as the operating PRF for terminal phase illumination. When the radar is in track, a Sparrow missile the selected weapon, no AMRAAM missile is in flight, and low duty factor is not selected, pressing the PRF option pushbutton forces the radar into terminal phase illumination and PDI is displayed to indicate pilot selection of the higher PRF prior to missile launch. When the pushbutton is pressed after Sparrow launch but there are more than 10 seconds to intercept, pressing the pushbutton removes the box but PDI continues to be displayed for the present operating PRF. When the Sparrow is in flight with less than 10 seconds to intercept, the deselection is ignored and PDI continues to be displayed. The PDI option is automatically unboxed and the radar returns to search when Sparrow is deselected or radar track is lost</p> <p>( PRF Selection and Display Functional Schematic, A1-F18AC-742-500, WP012 00</p> <p>( PRF Selection and Display Functional Schematic, A1-F18AH-742-500, WP025 00).</p> |
| 24 | LTWS Option | <p>When the LTWS option is selected/boxed with the radar in RWS, anytime the cursor s placed over a radar trackfile on the attack format which is not already represented by an MSI trackfile HAFU symbol, the MC displays a HAFU symbol for the corresponding MSI trackfile on the attack format. In addition, launch zones are displayed for the trackfile under cursor if it is one of the top eight priority trackfiles and launch zones are not already being displayed on the attack format. The LTWS option on the attack format data sublevel only impacts what is displayed on the attack format; it does not in any way inhibit radar inputs from contributing to the MSI algorithm</p> <p>( Air to Air Mode Selection Schematic, A1-F18AC-742-500, WP018 01</p> <p>( Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00).</p> |
| 25 | Elevation Scale and Caret | <p>Displayed in all A/A radar modes. Position of caret on scale indicates the position of radar antenna in the vertical plane</p> <p>( B-Sweep and Elevation caret positioning and Display Schematic, A1-F18AC-742-500, WP024 00</p> <p>( Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 15)











| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 26 | Differential Altitude | <p>Target differential altitude, in thousands and tenths of thousands of feet, is displayed adjacent to the antenna elevation symbol whenever an MSI L&S target exists and range (which is used to calculate altitude) is known. The target differential altitude is the altitude of the target above (positive) or below (negative) ownship. It is remove from the format when DCLTR2 is selected</p> <p>( Range/range Rate and Target Differential ALT Display Schematic, A1-F18AC-742-500, WP026 00</p> <p>( Range/range Rate and Target Differential ALT Display Schematic, A1-F18AH-742-500, WP028 00).</p> |
| 27 | RF Channel | <p>The RF channel display indicates the RF channel set on which the radar set is operating and the selected channel set when the mission computer is commanding automatic frequency agility. In automatic frequency agility the radar will operate in the automatic frequency agility mode using the channels of the selected set. In manual channel control the radar operates only on the selected channel. RF channel is displayed in all radar modes</p> <p>( Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00</p> <p>( RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00).</p> |
| 28 | Channel Fail X | <p>X displayed over operating channel when radar built-in test detects channel fail. When CHAN select is AUTO mode, radar will select next channel and X will not be displayed. When CHAN select is MAN, X will be displayed</p> <p>( Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00</p> <p>( RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00).</p> |
| 29 | Radar Acquisition Mode Cue | <p>AACQ displayed in NAV or A/A master mode when radar is in auto acquisition mode. WACQ displayed when radar is in wide acquisition mode</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00).</p> <p>VACQ displayed when radar is in vertical acquisition mode</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00</p> <p>( Air Combat maneuvering and Gun Mode Display Schematic, A1-F18AH-742-500, WP026 00).</p> |

Figure 1. A/A Mode Radar Symbolgy (Sheet 16)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 30 | HITS | <p>Displayed when radar mode is TWS. When HITS pushbutton switch is pressed, target raw hit position and HITS are displayed. HITS is initialized selected (boxed) at power up and weight on wheels. HITS is not displayed when radar mode is RAID mode. HITS is unboxed (deselected) by pressing the HITS pushbutton or by selecting RSET</p> <p>() Erase/Freeze and Target Aging Display Schematic, A1-F18AC-742-500, WP017 00</p> <p>() Erase/Freeze and Target Aging Display Schematic, A1-F18AH-742-500, WP024 00).</p> |
| 31 | Weapon Type and Quantity | <p>The selected weapon type and quantity of missiles available for launch are displayed for the Sidewinder, Sparrow and AMRAAM modes. For Sparrows, the MC displays either the 7F or 7M cue. For Sidewinders, the 9M or 9L cue is displayed. For AMRAAM, the MC displays the AA, AB, AC, AT, BT, CT, or ??cue. When the gun is the selected weapon the GUN cue is displayed with the remaining rounds displayed below.</p> |
| 32 | Low Priority Targets | <p>All priority trackfiles other than the top eight (including the L&S and DT2) are represented on the attack format by small + signs when they exist</p> <p>() TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00</p> <p>() Air to Air Search Mode Display Processing Functional Schematic, A1-F18AH-742-500 WP016 00).</p> |
| 33 | Passive Ranging Cues | <p>Passive ranging best guess and plus or minus sigma uncertainty cues are displayed when passive ranging data is calculated from a FLIR autotrack target, MSI L&S, or STT angle-only-track (AOT) target</p> <p>() Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AC-742-500, WP026 00</p> <p>() Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AH-742-500, WP028 00).</p> |
| 34 | RMAX | <p>Rmax is the greatest range at which the missile can engage the target at the earliest time. assuming that the target is non-maneuvering. The MC uses the strictest of four intercept criteria to position this cue</p> <p>() ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AC-742-500, WP023 00</p> <p>() ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AH-742-500, WP027 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 17)







| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 35 | Launch Zones | <p>The MC computes launch zones for the top eight priority MSI trackfiles. Full launch zones are computed for those trackfiles for which full targeting parameters are available, while pseudo launch zones (AOT launch zones, nose-tail launch zones) are computed for those trackfiles without full targeting parameters available. Up to two sets of launch zones may be simultaneously displayed on the attack format. Launch zones are always displayed for the L&S and DT2 trackfiles if they exist. However, launch zones may be displayed for any one of the top eight priority MSI trackfiles that is under the cursor if either the L&S or DT2 launch zones are not displayed. Launch zones are not displayed if the attack format does not offer a valid range reference (VS mode, TWS SCAN, RAID or EXPAND mode), or if a target other than the L&S is under attack (AMRAAM visual mode or Sidewinder tracking a target other than the L&S). Launch zones are not displayed for the DT2 trackfile if DCLTR2 is selected on the attack format data sublevel</p> <p>( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AC-742-500, WP023 00</p> <p>( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AH-742-500, WP027 00).</p> |
| 36 | Sparrow Max Seeker Range | <p>Displayed when radar mode STT and:</p> <ol style="list-style-type: none"> 1. not STT RAID 2. Sparrow is the selected weapon 3. radar full track 4. ARM status (or SAFE/SIM) 5. not jammed 6. not track memory 7. SHOOT cue not displayed <p>Indicates computed maximum Sparrow seeker range. When seeker range exceeds target range, SHOOT is displayed when all other SHOOT logic is satisfied</p> <p>( ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p>( ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |
| 37 | R - No Escape (Rmax-2) | <p>Displayed when range envelope data are valid and operating radar range scale is valid. Description is identical to that of HUD display a</p> <p>( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AC-742-500, WP023 00</p> <p>( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AH-742-500, WP027 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 18)





| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 38 | Sparrow/ AMRAAM Missile Cue | If a Sparrow or AMRAAM is launched, a missile symbol (triangle) is displayed. Up to 8 missile symbols may be displayed at a particular time. For launches against AOT's (angle-only-track), or any time full track is lost during post-launch, the missile symbol will be positioned at the appropriate azimuth along the lower tactical region border; otherwise, the missile symbol travels up the target azimuth line toward the target. If the MSI trackfile ever goes invalid prior to an AMRAAM missile computed intercept, the missile symbol is positioned at the bottom of the format. Missile symbols are never displayed within the AOT zone, but rather are pegged beneath it when necessary. |
| 39 | Time To Active/ Missile Active Cue | AMRAAM TTA or Sparrow TTG cuing is provided at the bottom of the attack format for pre-launch. Additional TTG/TTA cuing is provided during post-launch under the missile flyout symbol for all missiles in flight. TTG/TTA is provided outside the tactical region as a pre-launch cue for the missile under the trigger only. TTG/TTA is provided under the missile symbol flyout cue for post-launch cuing. For AMRAAM TTA, once the counter reaches 0, an A is displayed to indicate that the missile has gone active. If the target under attack is not a full track or transitions to a non-full track after launch, straight-line (SL) countdown cuing is provided. Once a post-launch TTG/TTA transitions to SL countdown, it remains in SL countdown even if full track is re-established. |
| 40 | RMIN | Displayed when range envelope data are valid and operating radar range scale is valid. Description is identical to that of HUD display ( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AC-742-500, WP023 00 ( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AH-742-500, WP027 00). |
| 41 | DATA Option | Displayed to provide selection of the sublevel display of the attack format. When selected. DATA is displayed. Data sublevel pushbutton switch options displayed are speed gate, ECCM, target aging, color, MSI, LTWS, LDF, ID information, 1 LOOK RAID, TRAIN, and declutter/declutter 1/declutter 2 options. When the pushbutton switch is pressed while DATA is displayed, returns the top level attack format ( RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00 ( RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 19)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------------|--|
| 42 | CHAN | <p>Displayed in all radar modes. Pressing the pushbutton switch replaces CHAN with the AUTO-MAN option with one or the other being boxed. Boxing indicates radar transmission channel set selection was made manually or automatically. When CHAN is selected and MAN is displayed. DATA option is replaced by a channel set code that can be manually changed by pressing the pushbutton switch adjacent to the channel set identification letter or asterisk. AUTO is displayed to indicate the channel set automatically selected. Pressing the AUTO-MAN pushbutton switch causes the alternate mode (AUTO or MAN) to be boxed. No pushbutton switch action for a period of five seconds returns the CHAN - DCLTR display and options. CHAN option is removed when a missile is inflight</p> <p>() Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00</p> <p>() RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00).</p> |
| 43 | Missile Time of Flight | <p>Missile time of flight is displayed when on HUD display. When a Sparrow is launched, indicates the computed dynamic time of flight of the missile until target intercept. When an AMRAAM is selected but not launched, indicates the pre-launch time to go in seconds until the missile goes active (HUD Display Symbology, WP007 00)</p> <p>() Time-To-Go/Lost and Missile Time-Of-Flight Display Schematic, A1-F18AC-742-500, WP027 00</p> <p>() Time-To-Go/Lost and Missile Time-Of-Flight Display Schematic, A1-F18AH-742-500, WP029 00).</p> |
| 44 | Maximum Aspect Cue/ Shot Quality | <p>Number 0 to 18 displayed to represent aspect angle degrees times 10 to which the target could maneuver to defeat an A/A missile launch. The higher the number, the greater the probability of missile intercept</p> <p>() Time-To-Go/Lost and Missile Time-Of-Flight Display Schematic, A1-F18AC-742-500, WP027 00</p> <p>() Time-To-Go/Lost and Missile Time-Of-Flight Display Schematic, A1-F18AH-742-500, WP029 00).</p> |
| 45 | Azimuth Scan | <p>Provides pushbutton selection of 20, 40, 60, 80, and 140 azimuth scan patterns in VS and RWS A/A modes. In TWS mode, azimuth scans are function of elevation bar scan selection. ELBAR 2B commands 80, 60, 40, and 20 azimuth scan, 4B commands 40, and 20 and 6B commands 20. When TWS SCAN RAID mode is selected; azimuth scan pattern options are removed from the display. Azimuth scans of 20, 45, 90, and 120 exist in MAP, SEA and GMT A/G modes</p> <p>() Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00</p> <p>() Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 20)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 46 | INT Cue | Displayed in the NO RDR window when CIT interrogation is active. The INT cue has priority over the no radar cue. |
| 47 | Steering Dot | <p>Displayed on the format when Sidewinder, Sparrow or AMRAAM is selected, provided that an MSI L&S target exists. For Sidewinder, the dot is not displayed if the Sidewinder is tracking a target other than the MSI L&S. It will also be removed if Visual is selected when AMRAAM is the selected weapon. The steering dot, in conjunction with the ASE circle, provides lead-angle steering</p> <p>( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AC-742-500, WP023 00</p> <p>( ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AH-742-500, WP027 00).</p> |
| 48 | ASE Circle | <p>The allowable steering error (ASE) circle provides a steering reference in the Sparrow and Sidewinder modes when radar is tracking a target. The center of the ASE circle is positioned in the center of the indicator. Sparrow ASE circle diameter is computed from the intercept geometry. When sidewinder is selected, the ASE circle has a fixed diameter</p> <p>( ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p>( ASE Circle, Steering, Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |
| 49 | Radar Operating Mode | <p>The mode option is provided in RWS, TWS, and VS modes only and provides a means to select the operating mode of the radar. This option is selectable via HOTAS. The operating mode is initialized automatically to RWS. Successive depressions of the mode option selects the TWS mode and then the RWS mode again. Only the RWS and TWS modes can be selected via the pushbutton. This is to allow for smooth transitions between RWS and TWS while retaining all trackfiles and to prevent inadvertent loss of trackfiles by selecting VS mode accidentally. Stewing the acquisition cursor over the Mode indication causes the available options to appear for selection via depression/release of the TDC. Either RWS, TWS or VS mode can be selected by HOTAS</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00).</p> |
| 50 | Mode Fail X | <p>X displayed over mode or where mode is normally displayed when radar built-in test detects mode fail</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 21)





| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 51 | Target Aging | <p>Displayed only when DATA pushbutton switch pressed and displayed. Current target aging in seconds, displayed and selectable in all A/A modes. Selectable levels are 2, 4, 8, 16, and 32 seconds. Aging is increased to next higher level each time pushbutton switch is pressed. When current value 32, pushbutton switch action selects 2 seconds. Aging commands radar to keep target in display file for specified period, even when return is lost. In TWS mode, target aging is selectable for unfilled targets and target aging fixed at 2 seconds for filled targets (not displayed)</p> <p>( 1) ➤ Erase/Freeze and Target Aging Display Schematic, A1-F18AC-742-500, WP017 00</p> <p>( 2) ➤ Erase/Freeze and Target Aging Display Schematic, A1-F18AH-742-500, WP024 00).</p> |
| 52 | 1 LOOK (RAID) | <p>Displayed boxed at power up with weight on wheels. While in STT the DATA sublevel has incorporated a feature to perform one-look raid processing independent of the selection of the RAID switch on the throttle. This mode will generate hits and trackfiles in close proximity with the STT target. Due to the clutter that this might create, the 1 LOOK RAID option is provided to enable/disable this feature.</p> <p>( 1) ➤ RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00</p> <p>( 2) ➤ RAID Processing and Display Functional Schematic, A1-F18AH-742-500, WP014 00).</p> |
| 53 | COLOR Option | <p>Displayed when DATA is selected. Selection of the COLOR option causes the option legend to be boxed and will provide color symbology for the 8 top priority MSI trackfile symbols, the track under the cursor, associated displayed trackfile data, acquisition symbols, and altitude coverage. Symbol color is determined by the target identification status: friendly-green, hostile-red, unknown/ambiguous-yellow. Acquisition symbols and altitude coverage will be yellow.</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 22)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 54 | MSI Option | <p>The MSI option only applies to the RWS radar mode and associated submodes. It does not affect the MSI algorithm. but rather, the trackfile display cuing on the RWS format. If the radar is in a mode other than RWS, the option selection is treated as preselection. Selection/deselection of the MSI option is used to control which MSI trackfiles are displayed and which MSI trackfiles are suppressed from the RWS format. Radar trackfiles are generated in RWS but are intentionally suppressed from the RWS format to allow for a clearer representation of the radar raw hits (blips). If the MSI option is boxed, the following trackfiles are displayed:</p> <ol style="list-style-type: none"> 1. The L&S 2. Any trackfiles under AMRAAM attack 3. MSI trackfile corresponding to the radar target under the cursor (if the LTWS option is selected) 4. All other trackfiles which have FLIR, HARM or LINK 4 contributions <p>If the MSI option is unboxed, the following trackfiles are displayed:</p> <ol style="list-style-type: none"> 1. The L&S 2. Any trackfile under AMRAAM attack 3. MSI trackfiles corresponding to the radar target under the cursor (if the LTWS option is selected) <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Air Mode Selection Schematic, A1-F18AH-742-500, WP032 00).</p> |
| 55 | DCLTR DCLTR1 DCLTR2 | <p>Displayed on the data sublevel display. Each time the DCLTR pushbutton switch is pressed, the option label cycles from DCLTR to, to DCLTR2, and back to DCLTR. DCLTR 1 removes the horizon line and velocity vector. DCLTR 2 removes the horizon line, velocity vector, range caret, differential altitude, range rate numerics, target heading and DT2 launch zones</p> <p>( Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( DCLTR and RSET select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 56 | LDF Option | <p>Displayed to allow the operator to manually force the radar to the low duty factor operating mode</p> <p>( RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00</p> <p>( RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00).</p> |
| 57 | Speed Gate Options | <p>NORM or WIDE displayed on the data sublevel display in RWS, VS, or TWS modes to select the width of the radar receiver notch filter. NORM indicates normal radar detection and is the initialized condition. WIDE filters out slower moving targets and fast moving ground targets displayed as A/A threats</p> <p>( Speed gate Select Schematic, A1-F18AC-742-500, WP043 00</p> <p>( Speed gate Select Schematic, A1-F18AH-742-500, WP033 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 23)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------------|--|
| 58 | ECCM | <p>Displayed on the data sublevel display in all radar A/A and A/G modes except when the radar is in BIT or when the radar acquisition cursor comes within the radar mode window (not a HOTAS function). Function is initialized selected (boxed)</p> <p>(<input type="checkbox"/> 1) A1-F18AC-742-550/(C), WP005 00 <input type="checkbox"/> 2) A1-F18AH-742-550/(C), WP005 00).</p> |
| 59 | STOW | <p>Provided to select radar functions related to antenna positioning. When STOW is selected, commands search mode when radar is in STT</p> <p>(<input type="checkbox"/> 1) ASE Circle, Steering Dot, RMAX and RMIN, and Break-X Display, A1-F18AC-742-500, WP023 00 <input type="checkbox"/> 2) Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |
| 60 | ACTIVE | <p>Displayed when A/A master mode and radar is in RWS/silent. TWS/silent, or VS/silent. Commands radar to active mode far one scan when pressed. RWS active mode is forced into TWS active mode during an AMRAAM command inertial active launch. Option is not boxed during the active frame</p> <p>(<input type="checkbox"/> 1) RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00 <input type="checkbox"/> 2) RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00).</p> |
| 61 | AUTO/ BIAS/MAN Scan Center | <p>Displayed when TWS is selected. Pushbutton switch commands alternate action with selected state boxed. With MAN selected, the azimuth scan remains centered at its last commanded position and the elevation scan is centered as a function of venire setting and elbar selection. With AUTO selected, the azimuth and elevation scans are centered on the centroid of the targets with established track files. When TWS mode not in manual scan center and TWS scan bias selected, AUTO is unboxed and BIAS is displayed. AUTO/MAN scan centering is not available when in TWS SCAN RAID mode.</p> <p>AUTO scan centering is modified by biasing the azimuth center using the TDC when radar acquisition is not over a target. Automatic centering is restored when platform heading and inserted heading are different by more than 90 degrees: RSET, SCAN RAID, or MAN selected; AMRAAM launched; TWS mode deselected; or track files no longer exist. Elevation center is not affected by bias. Pressing either the RTS/TWS or TWS pushbutton switch commands AUTO scan centering</p> <p>(<input type="checkbox"/> 1) ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00 <input type="checkbox"/> 2) ASE Circle, Steering Dot, R-MAX' and R-MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |
| 62 | NCTR | <p>Initialized as selected upon power-up with weight on wheels and has independent control compared to the NCTR option which is available in STT</p> <p>(<input type="checkbox"/> 1) A1-F18AC-742-550/(C), WP004 00 <input type="checkbox"/> 2) A1-F18AH-742-550/(C), WP004 00).</p> |

Figure 1. A/A Mode Radar Symbolgy (Sheet 24)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------------|---|
| 63 | Iron Cross | The radar cross is displayed when the radar is operating but the radar transmitter is not in a transmit mode due to EMCON, silent operation, BIT, transmitter failure, or operation on the ground (1) RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00 (2) RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00). |
| 64 | AUTO MAN/QL | Displayed when silent is selected (SIL boxed). Provided to command automatic QL functions (1) RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00 (2) RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00) |
| 65 | Waypoint Target Bearing and Range | When the radar is in an A/A mode (excluding Expand. RAID, or VS), and the A/A waypoint function is enabled, and the cursor is in the tactical region of the attack format, the bearing and range from the A/A waypoint to the cursor position on the attack format is displayed, regardless of the A/A waypoint location. (1) Waypoint Option Schematic, A1-F18AC-742-500, WP044 00 (2) Waypoint Option Schematic, A1-F18AH-742-500, WP030 00). |
| 66 | Dugout | Used to display angle-only-track. Provided in all A/A modes except VS and STT RAID. |
| 67 | AOT | Provided to force the radar to passive ranging when the radar is in STT full track and SIM made is selected to simulate passive ranging conditions for training. AOT is displayed when passive ranging SIM mode is selected (1) Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AC-742-500, WP026 00 (2) Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AH-742-500, WP028 00). |
| 68 | TWS Option | Displayed when in STT, a Sparrow is not in flight, and A/A gun is not selected. Pushbutton switch or HOTAS selection enables transition from STT to TWS mode without returning to a search mode. TWS active is forced from RWS active for a command inertial active AMRAAM launch (1) ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00 (2) ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00). |
| | FLOOD Option | Displayed when in STT and a Sparrow is in flight with normal PDI. Pressing the pushbutton switch or HOTAS selection commands the radar to FLOOD. FLOOD is also removed when the radar track is dropped or time of flight expires (1) Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AC-742-500, WP026 00 (2) Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AH-742-500, WP028 00). |

Figure 1. A/A Mode Radar Symbology (Sheet 25)







| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------|---|
| 69 | OVRHT | <p>Displayed and flashed when digital data computer system receives radar overheat message. OVRHT is not flashed when EMERG is selected on SNSR pod control box assembly</p> <p>( 1 Environmental Services Schematic, A1-F18AC-742-500, WP007 00</p> <p> 2 Environmental Services Schematic, A1-F18AH-742-500, WP007 00).</p> |
| 70 | Target Range/ Range Rate | <p>Target range caret and closing velocity in knots is displayed for the MSI L&S target when target range and range rate is available. The symbols move vertically along the right edge of the attack format. The range caret is an analog indication of target range. Range rate is positive for closing velocity and negative for opening velocity. If range is unknown and range rate is known, the closing velocity is displayed in the upper right corner following a Vc label. If the L&S is near the right hand border, or if DCLTR2 is selected, the symbols are not displayed.</p> <p>( 1 Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AC-742-500, WP026 00</p> <p> 2 Range/Range Rate and Target Differential ALT Display Schematic, A1-F18AH-742-500, WP028 00).</p> |
| 71 | Break-X | <p>The breakaway X appears in the center of the attack format at the same time that it appears on the HUD. The breakaway X provides a cue to indicate when to break off the engagement or alter the attack position to achieve a weapon delivery solution. It is displayed in all A/A weapon modes when the range to the target is less than the minimum computed range for the selected weapon.</p> <p>(HUD Display Symbolology, WP007 00).</p> |
| 72 | Altitude | <p>Barometric altitude displayed when ALT switch in BARD position on HUD control panel. If barometric altitude not valid, only flashing B is displayed</p> <p>(Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00).</p> <p>Radar altitude displayed when ALT switch in RDR position on HUD control panel. The letter R is displayed next to the altitude. If RDR selected but not valid, baro altitude is displayed and R is replaced by a flashing B. The thousand and ten thousand digits are larger than the tens, hundreds, and units. If altitude less than 1000 feet, all digits are large size</p> <p>(Electronic Altimeter System Functional Schematic, A1-F18AC-600-500, WP023 00).</p> |
| 73 | IN RNG | <p>Displayed in RAID or EXP mode when target is in range but the shoot cue criteria has not yet been met</p> <p>( 1 TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00</p> <p> 2 Air to Air Search Mode Display Processing Functional Schematic, A1-F18AH-742-500 WP016 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 26)







| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 74 | Selected Waypoint | <p>Displayed to represent the position of the currently selected A/A waypoint. It is displayed when the A/A WYPT option is selected on the HSI/DATA/WYPT sublevel and the waypoint location lies within the tactical region of the attack format. This symbol will be indicated as a circle on the attack format regardless of the A/G designation. In conjunction with the waypoint symbol, a pointer is also displayed which indicates the direction of magnetic north, or true north if the HDG TRUE option is selected. The A/A waypoint is only displayed on the RWS, TWS, and STT attack formats</p> <p>( Waypoint Option Schematic, A1-F18AC-742-500, WP044 00</p> <p>( Waypoint Option Schematic, A1-F18AH-742-500, WP030 00).</p> |
| 75 | Azimuth Grid | <p>The spacing between azimuth grid lines represents 30 degrees for all modes</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AC-742-500, WP022 00</p> <p>( Air Combat Maneuvering and Gun Mode Display Schematic, A1-F18AH-742-500, WP026 00).</p> |
| 76 | EXP | <p>Displayed in TWS or STT modes. In TWS mode, if the radar is not in SCAN RAID mode, selecting EXP will reconfigure the TWS format about the L&S in a range/azimuth expanded format, for a range resolved L&S target, or an azimuth expanded format for an angle-only-track L&S target. This expanded format is performed about the MSI L&S regardless of whether or not the radar is a contributor. In STT mode, if the MSI L&S target is not an angle-only-track target, and the L&S range is greater than 5 NM, and the EXP option is selected, the STT format is reconfigured. The Expanded format is +, -, 5 nm (range) and +, -, 10 degrees (azimuth) centered about the MSI L&S. All MSI and radar trackfile cuing is repositioned based upon this expanded scale.</p> <p>If the L&S target is stepped to a different MSI target, the expanded attack format will be displayed around the new L&S. The B-sweep is frozen at the appropriate relative azimuth of the MSI L&S target, based on a 140 degree azimuth scale. The range scale option and selections are removed. All launch zone cuing is removed from the format, however, launch zones will still be computed.</p> <p>A SHOOT cue will be displayed if the criteria for a SHOOT cue are met, otherwise, if the target is between Rmin and Rmax, an INNRNG cue is displayed. Targets or missile symbols that fall outside the expand format are pegged at the tactical region border</p> <p>( TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00</p> <p>( Air to Air Search Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP016 00).</p> |
| 77 | Mach | <p>Displayed in all radar modes when valid from Air Data Computer (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 27)







| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 78 | SURF | <p>The SURF legend is displayed on all radar A/A search modes when aircraft is in NAV master mode and radar not tracking. When pushbutton switch pressed, the radar operating mode changes from A/A to A/G</p> <p>( ➤ Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( ➤ Air to Air Track Processing and Display Functional Schematic, A1-F18AH-742-500, WP018 00).</p> |
| 79 | Acquisition Cursor | <p>The acquisition cursor is positioned by radar and displayed at all times in RWS, VS, TWS and STT modes when the TDC priority is assigned to the attack format. The cursor moves horizontally and vertically on the display in response to rate commands from the throttle designator controller (TDC). When the cursor is displayed in the tactical region numbers are displayed above and below it to indicate the altitude coverage of the radar scan pattern for the range at which the cursor is displayed. Radar altitude coverage values are only displayed in RWS (including submodes), VS, and TWS, assuming that the cursor is not in the AOT zone. The MC assumes an 80 NM range scale when determining cursor "range" on the VS format. The acquisition cursor is used for a variety of functions on the attack format including selection of pushbutton options, manual scan centering, Spotlight mode functions, trackfile designation and acquisition</p> <p>( ➤ ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p>( ➤ ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> <p>In addition to the above display, bumping can be used to change the range scale and to increase/decrease the azimuth scan. If the cursor is moved (no-action slew only) out of the tactical region and then back into the tactical region within 0.8 seconds, the bump feature is activated. The function performed depends on which border of the tactical region was crossed: top border increases range scale, bottom border decreases range scale, left border decreases azimuth scan, and right border increases azimuth scan, by one step. The wrap around feature is incorporated into the bump mechanism for both range and azimuth. If the radar is in VS mode, display bumping changes the velocity scale in the same manner</p> <p>( ➤ ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AC-742-500, WP023 00</p> <p>( ➤ ASE Circle, Steering Dot, R-MAX and R-MIN, and Break-X Display Schematic, A1-F18AH-742-500, WP027 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 28)











| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 80 | RTS | <p>The radar exits STT when it receives a Return-To-Search command from the MC. Depending on the mode of entry into STT, the amount of time spent in STT and the method used to break track, different search parameters are set upon returning to the search mode of operation. If the RTS option is selected, the radar transitions to the default search mode with the previous scan volume and center. If Gun is the selected weapon, the RTS default mode is GACQ and the legend RTS/GACQ is displayed. If STT was entered from VS, the default search mode is RWS. If an AMRAAM is launched out of STT in a Command Inertial Active mode, the RTS default mode is forced to TWS</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( AGR/PVU Processing and Display Schematic, A1-F18AH-742-500, WP032 00).</p> |
| 81 | Tracked Target Heading | <p>Displayed when an MSI L&S target exists with valid target velocity data. Removed if DCLTR2 is selected. Displayed as magnetic heading unless HDG Heading TRUE is selected on HSI/DATA/ A/C DATA sublevel</p> <p>( Waypoint Option Schematic, A1-F18AC-742-500, WP044 00</p> <p>( Waypoint Option Schematic, A1-F18AH-742-500, WP030 00).</p> |
| 82 | TDC Assignment Symbol | <p>( Radar TDC Assignment and Acquisition Cursor Control Schematic, A1-F18AC-742-500, WP045 00</p> <p>( Radar TDC Assignment and Acquisition Cursor Control Functional Schematic, A1-F18AH-742-500, WP034 00).</p> |
| 83 | RAID Target | <p>Target symbol displayed for each target in a RAID target cluster</p> <p>( RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00</p> <p>( RAID Processing and Display Functional Schematic, A1-F18AH-742-500, WP014 00).</p> |
| 84 | Raw Hit Target | <p>Radar targets which are displayed directly from the radar and are not being maintained as MSI trackfiles are displayed as raw hits. Raw hit targets are displayed as a dash (-) when they exist. Targets detected in the RAID SCAN volume which are not a part of the RAID cluster are displayed as raw hits</p> <p>( TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AC-742-500, WP021 00</p> <p>( TWS Targets and Launch Range and Steering Target Display Schematic, A1-F18AH-742-500, WP016 00).</p> |

Figure 1. A/A Mode Radar Symbology (Sheet 29)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 85 | Overflow Data | The overflow target ID data is displayed by pressing the option. |
| 86 | RAID | Displayed when radar is operating in STT raid mode. Selected by pressing the RAID pushbutton switch on the throttle. An X is displayed through the center of the STT RAID cue when raid mode is selected but not accessible. Air to Air missiles can be launched against trackfiles detected during scanning. SIT raid mode can remain active when an AMRAAM is launched ( RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00  RAID Processing and Display Functional Schematic, A1-F18AH-742-500, WP014 00). |
| | SCAN RAID | Displayed when operating in TWS. The cue is overlaid with an X when scan raid is not accessible. TWS scan raid mode remaining active when an AMRAAM is launched. The undesignate switch is used to step L&S targets ( RAID Processing and Display Schematic, A1-F18AC-742-500, WP030 00  RAID Processing and Display Functional Schematic, A1-F18AH-742-500, WP014 00). |
| 87 | Acquisition Point Cue | Displayed to indicate highest priority target in the attack region when the HAFU for that target is not already displayed. The cue is not displayed when: (a) a higher priority target is already displayed. (b) any track file is under the cursor. |
| 88 | FLOOD | When flood is commanded by MC, the radar immediately goes into FLOOD mode and FLOOD is displayed ( Flood Selection and Display Schematic, A1-F18AC-742-500, WP025 00  Flood Selection and Display Schematic, A1-F18AH-742-500, WP023 00). |
| 89 | Velocity Vector | The velocity vector is displayed when: 1. declutter 1 or 2 not selected 2. velocity vector valid 3. flight path angle valid 4. attitude valid It is displayed at a fixed position and used with the moving artificial horizon to indicate the aircraft vertical flight path angle and roll attitude ( Velocity Vector, Horizon Line, DCLTR and RSET Selects Display Schematic, A1-F18AC-742-500, WP019 00  DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00). |

Figure 1. A/A Mode Radar Symboly (Sheet 30)













| Index No. | Display Element (Ref Code) | Description |
|--|----------------------------|---|
| 90 | Horizon Line | <p>The horizon line is displayed when the velocity vector is displayed. Its vertical Line position with respect to the velocity vector indicates vertical flight path angle, and its alignment with the velocity vector wings in the horizontal plane indicates aircraft roll attitude. It is limited to plus or minus, 6 degrees. When flight path angle exceeds plus or minus, 6 degrees, the horizon flashes</p> <p>( 1  Velocity Vector. Horizon Line, DCLTR and RSET Selects Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( 2  DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 91 | TRAIN | <p>Selecting the option disables some of the normally scheduled frequency agility which is performed by the radar during search modes. This option is initialized as selected at power-up with weight on wheels</p> <p>( 1  Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00</p> <p>( 2  RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00)</p> |
| <p style="text-align: center;">LEGEND</p> <p>( 1  F/A-18A 162826 THRU 163175 AFTER F/A-18 AFC 253.</p> <p>( 2  F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292.</p> | | |

Figure 1. A/A Mode Radar Symbology (Sheet 31)

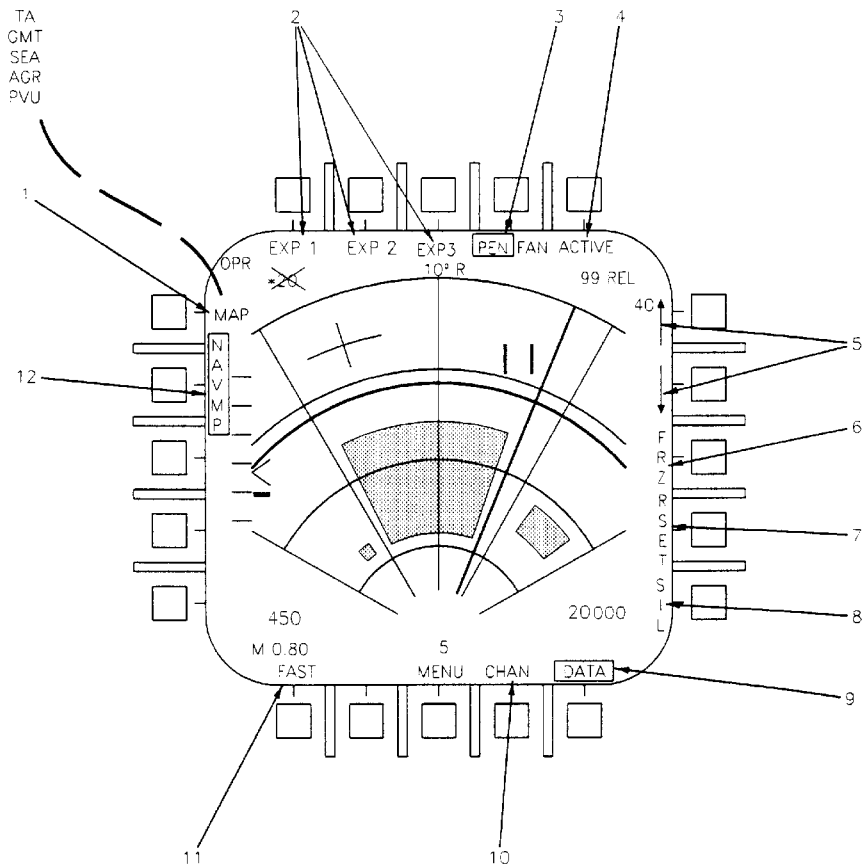


Figure 2. A/G Mode Radar Symboly (Sheet 1)

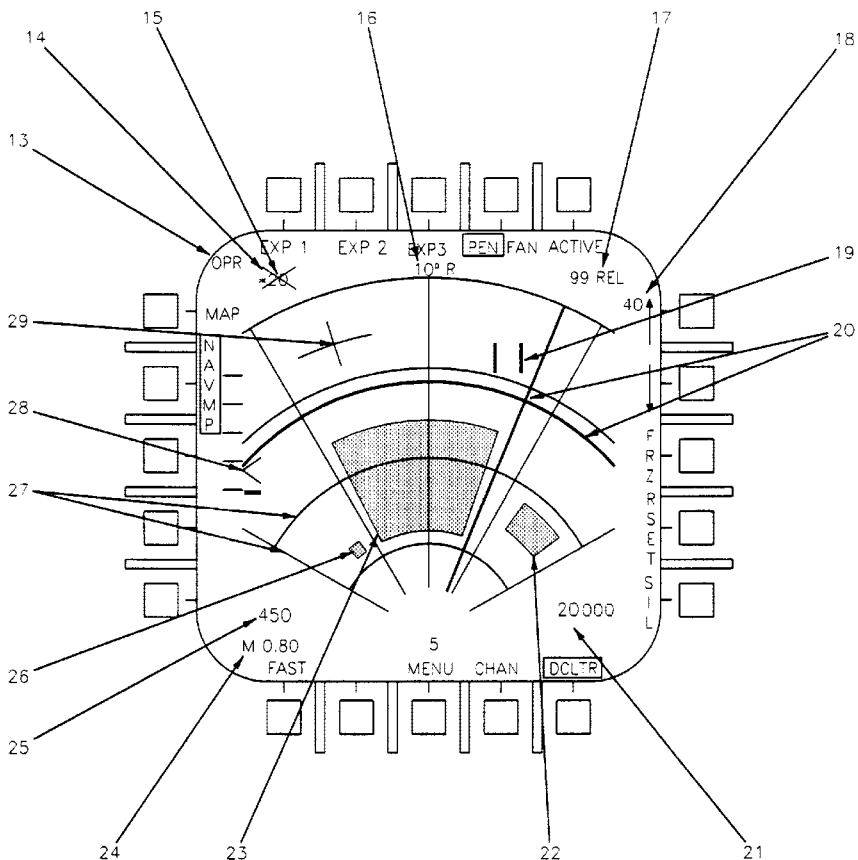


Figure 2. A/G Mode Radar Symbology (Sheet 2)

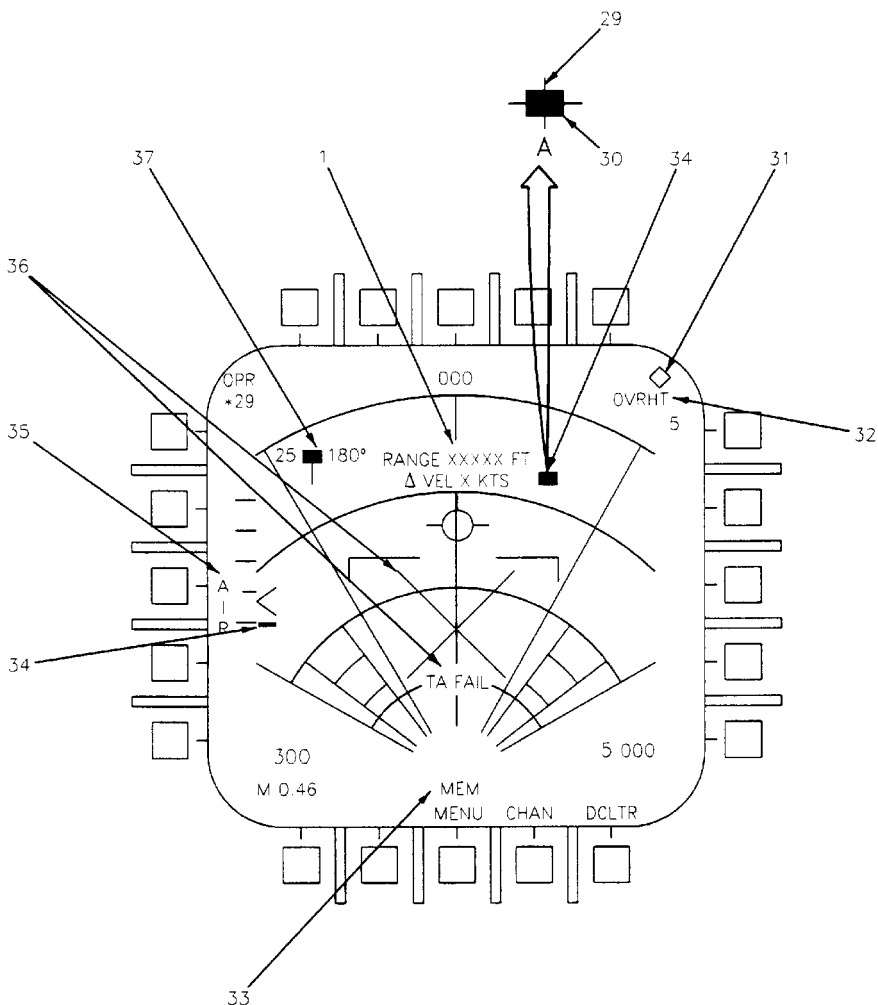


Figure 2. A/G Mode Radar Symbology (Sheet 3)



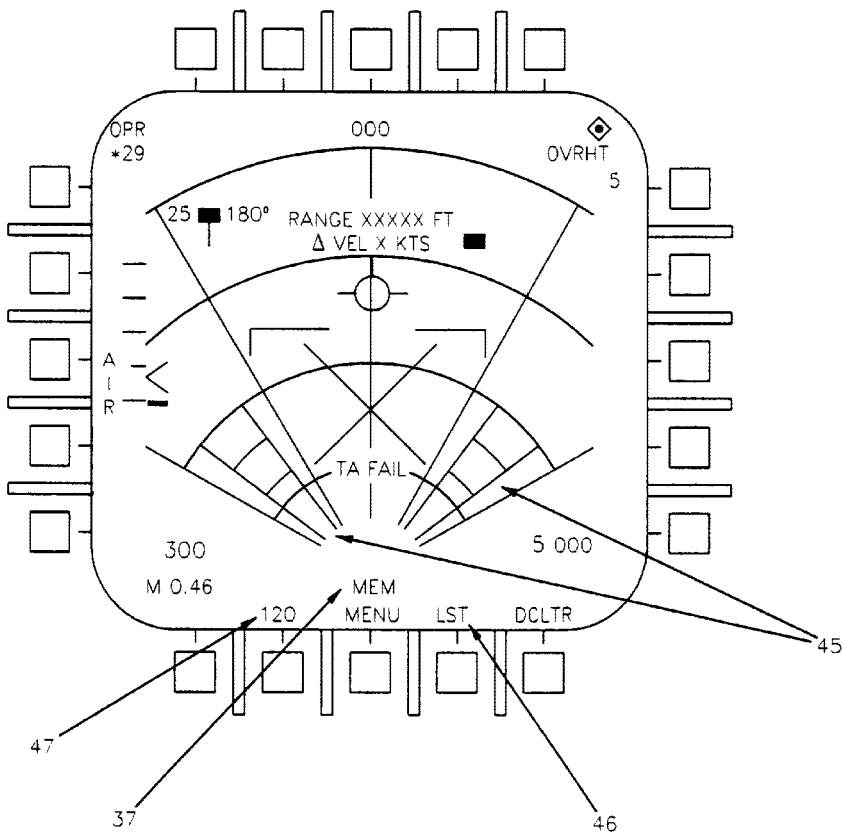


Figure 2. A/G Mode Radar Symbology (Sheet 5)

Figure 2. A/G Mode Radar Symboly (Sheet 6)







| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------|---|
| | TA (Terrain Avoidance) | <p>Displayed to provide selection of a ground clearance display. Pushbutton switch selectable except when the radar is in the track, AGR, or PVU modes. A large break X and TA FAIL is displayed when a failure exists. TA is a ground track up PPI display, available in A/G master mode with selectable ranges of 5 and 10 nm. Azimuth scan is 70 degrees. TA mode includes two wedge shaped areas at the base of the PPI. The wedges are displayed on both sides of the ground track scan within the 70 degree azimuth scan and through the S and 10 nm range arcs.</p> <p>Two clearance planes are computed by the radar. In level flight or climbing, the clearance planes are horizontal. When diving, the clearance planes are always parallel to the aircrafts flight path. Terrain more than 500 feet below the aircraft altitude is blanked. Terrain within 500 feet below is displayed at an intermediate intensity level. Terrain above the aircraft is displayed at the highest intensity. The ranges and azimuths in which rain or chaff is the dominant return identified by the radar is flashed at maximum intensity on a frame to frame basis</p> <p>( 1 Mode Selection Schematic, A1-F18AC-742-500, WP018 00  2 Air to Ground Mode Selection Schematic, A1-F18AH-742-500, WP031 00).</p> |
| | PVU (Precision Velocity Update) | <p>Automatically displayed when velocity update option is selected on the HSI display. Displayed also when inflight alignment (IFA) is selected in NAV master mode. Not Pushbutton selectable and inhibited in A/A master mode and during EMCON. Only the horizon line and velocity vector are displayed</p> <p>( 1 Mode Selection Schematic, A1-F18AC-742-500, WP018 00  2 Air to Ground Mode Selection Schematic, A1-F18AH-742-500, WP031 00).</p> <p>Velocity error is a comparison of radar velocity and best available digital data computer velocity. The update can be accepted or rejected on the HIS display. The update is retained within the weapons delivery computations for 10 minutes and phased out during the last 5 minutes; therefore, update acceptance should be made early prior to weapon delivery for greater accuracy. Velocity update is used for weapons delivery computations only; it does not change INS velocities</p> <p>( 1 AGR/PVU Processing and Display Schematic, A1-F18AC-742-500, WP032 00  2 AGR/PVR Processing and Display Functional Schematic, A1-F18AH-742-500, WP022 00).</p> |

Figure 2. A/G Mode Radar Symboly (Sheet 7)







| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------------|---|
| | AGR (Air To Ground Ranging) | <p>Automatically displayed when TDC is assigned to the HUD or designating a target/OAP with the HUD, NFLR, or LST. Not HOTAS or pushbutton selectable and inhibited when SIL is displayed. AGR is the same display as PVU except for the addition of slant range and delta (Δ) velocity error. Slant range to the ground is line of sight and displayed in feet. Maximum range is of 10 nm. Δ VEL is displayed when the radar is ranging and indicates an error between range rate and aircraft velocity. The Δ VEL is an advisory to the pilot to indicate that a velocity update may be required</p> <p>( AGR/PVU Processing and Display Schematic, A1-F18AC-742-500, WP032 00</p> <p> AGR/PVU Processing and Display Functional Schematic, A1-F18AH-742-500, WP022 00).</p> |
| 2 | EXP1, EXP2, and EXP3 Mode Options | <p>Displayed to select sector of map display, for a higher resolution than provided in map mode. Pushbutton switch selectable from the map mode or any other expand mode. The option is boxed when selected. When any of the expand options is boxed, the acquisition cursor is displayed except when a target or OAP is not designated. When a target or OAP is not designated, selecting an expand option causes a sector corral to be superimposed on the map display.</p> <p>The sector corral is mechanized exactly like the acquisition cursor and the expanded area is displayed when the TDC pushbutton is released. If a target or OAP is designated, the surrounding area is displayed in one of the expanded modes depending on range and altitude. The area selected is not displayed immediately but builds as a result of video processing. EXP3 provides the highest resolution and EXP1 provides the lowest. EXP2 and EXP3 becomes a PPI display when range to map center is less than 3 nm. EXP1 and EXP2 are angular coverage modes with azimuth scan for EXP1 is fixed at 45 degrees and EXP2 is fixed at 12.6 degrees.</p> <p>Maximum range for the EXP1 and EXP2 is 40 nm. EXP3 is a fixed range perimeter coverage mode with the display a constant area and constant resolution regardless of range. Maximum range for EXP3 is 30 nm.</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p> Air to Ground Mode Selection Schematic, A1-F18AH-742-500, WP031 00).</p> |
| 3 | PEN/FAN | <p>Displayed to provide selection of pencil or fan beam. HOTAS and pushbutton switch selectable from MAP, SEA, GMT, and expand modes. Initializes deselected. Repeated Pushbutton switch depressions cycle from PEN/FAN. PEN boxed (radar pencil beam selected), FAN boxed (radar fan beam selected), and back to PEN/FAN. Boxing the PEN or FAN options overrides automatic selection by the radar</p> <p>( RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00</p> <p> RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00).</p> |

Figure 2. A/G Mode Radar Symboly (Sheet 8)











| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------|--|
| 4 | ACTIVE | <p>Displayed only in SIL mode but not in AGR mode. Pushbutton switch selectable. When ACTIVE option selected, radar transmits for one scan to update the video display. At end of scan, radar returns to silent operation and display is again frozen.</p> <p>() RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00</p> <p>() RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00).</p> |
| 5 | Range Increment/Decrement (A/G) | <p>Upward and downward point caret symbols displayed in TA, SEA, GMT, and MAP modes. Pushbutton switch selectable. Not displayed when (A/G) a target or OAP is designed. Repeated selection of either caret cycles up or down through 5, 10, 20, 40, 80, and 160 nm ranges. The range scale is limited to 5 and 10 nm in TA, 40 nm in GMT, 80 nm in SEA, and 160 nm in MAP modes</p> <p>() Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00</p> <p>() Range Scale Select and Display Schematic, A1-F18AH-742-500, WP036 00).</p> |
| 6 | FRZ Option | <p>Displayed in all modes except TA, PVU, and AGR. Displayed boxed when selected or if SIL option selected. Pushbutton switch selectable, Freezes the video display; however, radar continues scanning. Video within the tactical display area is blanked in the silent mode when the boxed FRZ option is pressed</p> <p>() Erase/Freeze and Target Aging Display Schematic, A1-F18AC-742-500, WP017 00</p> <p>() Erase/Freeze and Target Aging Display Schematic, A1-F18AH-742-500, WP024 00).</p> |
| 7 | RSET | <p>Displayed when MAP, SEA, GMT, or any expand option selected. Pushbutton switch selectable. Commands radar to re-initialize the video gain, pencil or fan beam selection, and the antenna elevation angle to provide best coverage and display for the selected range scale and aircraft altitude</p> <p>() Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>() DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 8 | SIL Option | <p>Displayed in all modes except when PVU or TA. Pushbutton switch selectable. SIL is displayed when selected. Freezes the video display and inhibits radar transmissions but continues to operate passively. Video in the tactical display region is blanked when changing modes in the silent mode. SIL option is unboxed and the option is removed from the display when radar is in track</p> <p>() RF Power Distribution Schematic, A1-F18AC-742-500, WP010 00</p> <p>() RF Power Distribution Schematic, A1-F18AH-742-500, WP010 00).</p> |

Figure 2. A/G Mode Radar Symbology (Sheet 9)









| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 9 | Data Option | <p>Displayed to provide selection of A/G radar data sublevel display. Data sublevel displays ECCM and DCLTR options and GN legend and increment/decrement carets. Pushbutton switch selectable. DATA is displayed when selected. Selecting DATA when boxed returns to the top level A/G radar display. DATA option is replaced with channel number if CHAN option is selected</p> <p>( Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( Air to Ground Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP012 00).</p> |
| 10 | CHAN | <p>Displayed to provide selection of manual channel control. HOTAS and pushbutton switch selectable. Selection of CHAN option replaces CHAN legend with the AUTO-MAN legend. Repeated Pushbutton switch depressions cycle the option from AUTO MAN, AUTO MAN, AUTO MAN, and back to AUTO MAN. If AUTO is boxed, radar transmission channel selection is being made by the radar target data processor. A letter (or asterisk for the wide channel set) is displayed indicating the channel set. If MAN is boxed, the radar is limited to transmitting on the manually selected channel. DATA legend is replaced by an alphanumeric display of channel sets or individual channels. When TA option is selected, AUTO channel control is automatically selected. If AUTO or MAN options are not selected for five seconds, the CHAN and DCLTR options are returned</p> <p>( Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00</p> <p>( RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00).</p> |
| 11 | FAST | <p>Displayed when NAVMP option is selected. Pushbutton switch selectable. FAST is displayed when selected. Selection causes faster update of video, but decreased resolution</p> <p>( Doppler Beam Sharpened Processing and Display Schematic, A1-F18AC-742-500, WP041 00</p> <p>( Doppler Beam Sharpened Processing and Display Functional Schematic, A1-F18AH-742-500, WP013 00).</p> |
| 12 | NAVMP | <p>Displayed to provide selection of real beam navigation ground map in MAP, SEA/INTL, or GMT/INTL. Pushbutton switch selectable. Ranges scales available are 5, 10, 20, and 40 nm ranges. When NAVMP is selected, the NAVMP option is boxed and a 8:1 doppler beam sharpened map is displayed in a $\pm 5^\circ$ notch within the displayed DBS map</p> <p>( Air to Ground Mode Selection Schematic, A1-F18AC-742-500, WP018 02</p> <p>( Air to Ground Mode Selection Schematic, A1-F18AH-742-500, WP031 00).</p> |

Figure 2. A/G Mode Radar Symbology (Sheet 10)











| Index No. | Display Element (Ref Code) | Description |
|-----------|-------------------------------------|---|
| 13 | Operating Condition | When digital data computer and radar system are not communicating RDY with a horizontal line superimposed is displayed. Otherwise, operating condition of radar; standby (STBY), operate (OPR), emergency (EMER), or test (TEST) is displayed () Operating Status Select and Display Schematic, A1-F18AC-742-500, WP008 00 () Operating Status Select and Display Schematic, A1-F18AH-742-500, WP008 00). |
| 14 | Channel Fail X | Displayed over operating channel when radar built-in test detects channel fail when CHAN select is MAN. When CHAN select is AUTO mode, radar selects next channel and X is not displayed () Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00 () RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00). |
| 15 | RF Channel | Displayed in all radar modes to indicate the RF channel on which the radar set is operating. An A is displayed when in automatic frequency agility operation. An M is displayed when in manual RF channel operation () Channel Select and Display Schematic, A1-F18AC-742-500, WP011 00 () RF Transmit Path Functional Schematic, A1-F18AH-742-500, WP009 00). |
| 16 | Angle Off Track or Magnetic Heading | Displayed in degrees and direction; left (L) or right (R), to indicate radar antenna azimuth displacement off ground track in EXP1 mode. In all other modes, indicates aircraft magnetic heading. () Doppler Beam Sharpened Processing and Display Schematic, A1-F18AC-742-500, WP041 00 () Doppler Beam Sharpened Processing and Display Functional Schematic, A1-F18AH-742-500, WP013 00). |
| 17 | Time To GO | Displayed when available on HUD display. ## REL (time to release), ## TTM (time to maximum range), ## PUP (time to pull-up), ## BURST (time to go to burst), or ## TTL (time to launch point) is displayed. Maximum time in seconds (##) is 99 (HUD Display Symbology, WP007 00). |
| 18 | Radar Range Scale | Displayed in MAP, SEA, GMT and TA modes. Increments or decrements as the up or down caret is Pushbutton switch selected to indicate Scale selected radar range scale () Range Scale Select and Display Schematic, A1-F18AC-742-500, WP020 00 () Range Scale Select and Display Schematic, A1-F18AH-742-500, WP036 00). |

Figure 2. A/G Mode Radar Symbology (Sheet 11)





| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------------|---|
| 19 | Acquisition Cursor | <p>Displayed in all modes when TDC priority is assigned to radar. Cursor can be positioned over whole display with TDC. The symbol is replaced with the sector corral when MAP option is selected, an expand mode is selected, a target or OAP not designated, and TDC is pressed and released.</p> <p>( Composite TV Video Processing and Display Schematic, A1-F18AC-742-500, WP029 00</p> <p>( Air to Ground Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP012 00).</p> |
| 20 | In-Video Bearing Cursor and Range Arc | <p>Displayed when TDC priority is assigned to the radar, acquisition symbol stewed (no-action) to bracket the area surrounding the radar return of the Arc object or (geographic) feature, and the TDC switch is pressed and released. The acquisition symbol is removed and the TDC is used to slew (action) the intersection of the bearing cursor and range arc directly over the object or feature. When the TDC pushbutton switch is released to designate the object or feature as a target or aimpoint (OAP), the target or OAP is synthetically displayed as a rectangular blip. When the radar antenna is stabilized on the blip, the bearing cursor and range arc are replaced by the stabilization cue (cross) superimposed on the blip. The acquisition cursor reappears in the stowed position outside the radar border in the lower left corner of the display. If the stabilization cue drifts off the blip, the target or OAP must be redesignated. The acquisition cursor is stewed (no action) from the stowed position back inside the radar tactical region. When the TDC switch is pressed and released, the bearing cursor and range arc are initialized at the stabilization cue position instead of the acquisition symbol position. The cursor and arc is then stewed (action) over the target or OAP blip and when the TDC pushbutton switch is released for redesignation</p> <p>( Composite TV Video Processing and Display Schematic, A1-F18AC-742-500, WP029 00</p> <p>( Air to Ground Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP012 00).</p> |
| 21 | Altitude | Displayed when available on HUD display (HUD Display Symbology, WP007 00). |
| 22 | EXP2 Corral | See EXP1, EXP2, and EXP3 Mode Options. |
| 23 | EXP1 Corral | See EXP1, EXP2, and EXP3 Mode Options. |
| 24 | Mach | Displayed when available on HUD display (HUD Display Symbology, WP007 00). |
| 25 | Airspeed | Displayed when available on HUD display (HUD Display Symbology, WP007 00). |
| 26 | EXP3 Corral | See EXP1, EXP2, and EXP3 Mode Options. |

Figure 2. A/G Mode Radar Symbology (Sheet 12)











| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------------|---|
| 27 | Range/Azimuth Grid | <p>Displayed in SEA and GMT modes. Also displayed in expanded modes when a target or OAP is not designated. The azimuth lines are displayed at 0°, ±30, and ±60°. The four range arcs are separated to divide the selected ranges into four equal segments. The separation depends on the range selected</p> <p>( Composite TV Video Processing and Display Schematic, A1-F18AC-742-500, WP029 00</p> <p>( Air to Ground Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP012 00).</p> |
| 28 | Antenna Elevation Scale and Caret | <p>Displayed in all modes except AGR and PVU. Caret represents radar antenna elevation. Elevation tic marks indicate 10° of elevation within a range of ±30°. Total elevation display is ±60°</p> <p>( Air to Ground Antenna Control Functional Schematic, A1-F18AC-742-500, WP016 00</p> <p>( Antennal Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |
| 29 | Stabilization Cue | <p>Displayed superimposed on the synthetic target or OAP blip after in-video bearing cursor and range arc designation</p> <p>( Air to Ground Designation Processing, A1-F18AC-742-500, WP038 00</p> <p>( Air to Ground Designation Processing, A1-F18AH-742-500, WP038 00).</p> |
| 30 | Synthetic Target/OAP (Blip) | <p>Displayed when an object or geographic feature radar return is designated a (ground) target or aimpoint (OAP). Horizontal position indicates relative azimuth. Vertical position indicates range.</p> |
| 31 | TDC Assignment Symbol | <p>Displayed when TDC is assigned to existing display.</p> <p>( Radar TDC Assignment and Acquisition Cursor Control Schematic, A1-F18AC-742-500, WP045 00</p> <p>( Radar TDC Assignment and Acquisition Cursor Control Functional Schematic, A1-F18AH-742-500, WP034 00).</p> |
| 32 | OVRHT | <p>Displayed and flashed when radar is overheated. OVRHT is not flashed when EM-ERG is selected on SNSR pod control box assembly</p> <p>( Environmental Services Schematic, A1-F18AC-742-500, WP007 00</p> <p>( Environmental Services Schematic, A1-F18AH-742-500, WP007 00).</p> |

Figure 2. A/G Mode Radar Symbolgy (Sheet 13)









| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 33 | TRACK/MEM Cue | <p>TRACK is displayed when radar is tracking a surface target. MEM is displayed when radar is in track memory</p> <p>( Memory Track Display Schematic, A1-F18AC-742-500, WP028 00</p> <p>( Memory Track Display Schematic, A1-F18AH-742-500, WP037 00).</p> |
| 34 | Optimum Antenna Elevation | <p>Displayed to indicate the optimum antenna elevation angle which the radar has computed to provide best coverage. Based on range scale, beam pattern selected, and aircraft altitude</p> <p>( Air to Ground Antenna Control Functional Schematic, A1-F18AC-742-500, WP016 00</p> <p>( Antennal Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |
| 35 | AIR | <p>Displayed to provide selection of RWS mode from the A/G master mode. RWS is initialized in 40 mile range and 120° azimuth scan</p> <p>( Mode Selection Schematic, A1-F18AC-742-500, WP018 00</p> <p>( Air to Ground Mode Selection Schematic, A1-F18AH-742-500, WP031 00).</p> |
| 36 | Break-X/TA FAIL Cue | <p>Displayed when terrain avoidance mode. Digital Data Computers, or INS fails. Break-X is flashed when on HUD display (HUD Display Symbolology, WP007 00).</p> |
| 37 | Target Course, Speed, and Aspect Vector | <p>Displayed when radar is in track. Target speed in knots is displayed on the left of the synthetic target blip and course in degrees on the right. The aspect vector indicates the course of the target relative to the aircraft. If track is initiated from the MAP or any expanded mode, the aspect vector is not active and points along the line of sight (0 or 180°). If track is initiated from SEA mode, the aspect vector is active. When the tracked target is stationary, no target course pointer is displayed on the symbol. If the speed of the tracked target is invalid, zero (0) knot is displayed; course and aspect vector are removed from the display</p> <p>( Air to Ground Track Processing Schematic, A1-F18AC-742-500, WP039 00</p> <p>( Air to Ground Track Processing Schematic, A1-F18AH-742-500, WP019 00).</p> |

Figure 2. A/G Mode Radar Symbology (Sheet 14)





















| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 38 | Velocity Vector | <p>Displayed at a fixed position to indicate the flight path of the aircraft relative to the moving artificial horizon line. Removed when DCLTR option pushbutton switch pressed and option boxed</p> <p>( 1  Velocity Vector, Horizon Line, DCLTR and RSET Select Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( 2  DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 39 | Horizon Line | <p>Displayed in motion to indicate the direction of the horizon relative to the velocity vector in pitch and roll. Limited to $\pm 6^\circ$ in pitch and if limited, flashes 2.5 times per second. Removed when DCLTR option pushbutton switch pressed and option boxed</p> <p>( 1  Velocity Vector, Horizon Line, DCLTR and RSET Selects Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( 2  DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 40 | DCLTR | <p>Displayed to provide the option to remove the (artificial) horizon line and velocity vector symbol. Pushbutton switch selectable. When selected (boxed), the removes horizon line and velocity vector from all radar modes</p> <p>( 1  Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00</p> <p>( 2  DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00).</p> |
| 41 | Map Video Gain Value | <p>Displayed to indicate a numerical relative value of the video raster in response to GN increment and decrement caret selections.</p> |
| 42 | GN | <p>Displayed in all map modes to provide control in changing the relative gain of the video raster. Pushbutton switch selectable upward and downward pointing carets are displayed above and below the GN legend. Control is also provided via the MAP GAIN switch on the Map Gain Control Panel Assembly</p> <p>( 1  Air to Ground Mode Display Processing Schematic, A1-F18AC-742-500, WP033 00</p> <p>( 2  Air to ground Mode Selection Schematic, A1-F18AH-742-500, WP031 00).</p> |
| 43 | ECCM | <p>Displayed on the data sublevel display in all radar A/A and A/G modes except when the radar is in BIT or when the radar acquisition cursor comes within the radar mode window. Function is initialized selected (boxed)</p> <p>( 1  A1-F18AC-742-500/(C), WP005 00</p> <p>( 2  A1-F18AH-742-500/(C), WP005 00).</p> |

Figure 2. A/G Mode Radar Symbolgy (Sheet 15)









| Index No. | Display Element (Ref Code) | Description |
|---|-------------------------------|--|
| 44 | Gray Scale | Displayed as a reference when adjusting brightness and contrast ( 1) Air to Ground Mode Display Processing Functional Schematic, A1-F18AC-742-500, WP033 00 ( 2) Air to Ground Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP012 00). |
| 45 | Intensity Scales (TA Display) | Displayed in three levels of intensity in TA mode in the lower left and lower right of the map azimuth and range grids. Provided as a reference when adjusting brightness and contrast ( 1) Air to Ground Mode Display Processing Functional Schematic, A1-F18AC-742-500, WP033 00 ( 2) Air to Ground Mode Display Processing Functional Schematic, A1-F18AH-742-500, WP012 00). |
| 46 | LST Tracking Cue | Displayed flashing when laser spot tracker is tracking an illuminated target. Displayed steady on when an L&S designation is made on the illuminated target. |
| 47 | Azimuth Scan | Azimuth Scan Displayed to provide scan width selection. Pushbutton switch selectable. Repeated pushbutton switch depressions cycles scan pattern from 20° to 120°. Wrap around is available from either limit ( 1) Antennal AS-32354/APG-63 Functional Schematic, A1-F18AC-742-500, WP037 00 ( 2) Antennal Control Functional Schematic, A1-F18AH-742-500, WP015 00). |
| LEGEND | | |
| ( 1) F/A-18A 162826 THRU 163175 AFTER F/A-18 AFC 253. | | |
| ( 2) F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292. | | |

Figure 2. A/G Mode Radar Symbology (Sheet 16)

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****HSI DISPLAY SYMBOLOGY****EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B**

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| A/A Radar Target (Figure 1, Index 20) | 14 |
| A/C Data (Figure 1, Index 56) | 18 |
| ACL (Figure 1, Index 25) | 14 |
| ACPT/REJ (Figure 1, Index 49) | 17 |
| ADF Bearing (Figure 1, Index 5) | 12 |
| Aircraft Speed (Figure 1, Index 19) | 14 |
| Aircraft Symbol (Figure 1, Index 19) | 14 |
| Align Coordinates/Present Position (Figure 2, Index 1) | 26 |
| Align TIME (Figure 2, Index 4) | 26 |
| AUTO (Figure 1, Index 16) | 13 |
| AUTO Update Select (Figure 1, Index 67) | 20 |
| Backup Navigation Symbolology (Figure 3) | 28 |
| Bearing ADF (Figure 1, Index 5) | 12 |
| Bearing TACAN Digital Range and (Figure 1, Index 36) | 16 |
| Bearing Waypoint Digital Range and (Figure 1, Index 3) | 12 |
| Command Heading Pointer (Figure 1, Index 7) | 12 |
| COMP (Figure 3, Index 1) | 30 |
| Compass Rose (Figure 1, Index 22) | 14 |
| CONT PVU (Figure 2, Index 12) | 27 |
| Course Line (Figure 1, Index 31) | 15 |
| Course Select (Figure 1, Index 15) | 13 |
| CSEL (Figure 1, Index 15) | 13 |
| Cursor (Figure 1, Index 69) | 20 |
| CV HDG (Figure 2, Index 6) | 26 |
| CV MAN (Figure 2, Index 7) | 26 |
| CV RF/CBL (Figure 2, Index 9) | 26 |
| CV SPD (Figure 2, Index 6) | 26 |
| DATA (Figure 1, Index 47) | 17 |
| DATA, A/C (Figure 1, Index 56) | 18 |
| Data, TACAN (Figure 1, Index 58) | 19 |
| Data, WYPT (Figure 1, Index 49) | 17 |
| DG (Figure 3, Index 1) | 30 |
| D/L (Figure 1, Index 28) | 15 |
| ERECT (Figure 3, Index 2) | 30 |
| F (Figure 1, Index 64) | 20 |
| GRND (Figure 2, Index 2) | 26 |
| Ground Speed (Figure 1, Index 19) | 14 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| Ground Track Pointer (Diamond) (Figure 1, Index 8) | 12 |
| GSPD (Figure 1, Index 51) | 18 |
| HDG/COMP (Figure 3, Index 3) | 30 |
| HDG/DG (Figure 3, Index 4) | 30 |
| HDG/SLV (Figure 3, Index 6) | 30 |
| HDG, CV (Figure 2, Index 6) | 26 |
| Heading Pointer, Command (Figure 1, Index 7) | 12 |
| Heading Select (Figure 1, Index 24) | 14 |
| Heading Slew (Figure 3, Index 5) | 30 |
| HSEL (Figure 1, Index 24) | 14 |
| HSI (Figure 1, Index 48) | 17 |
| HSI Symbology (Figure 1) | 4 |
| HUD EW (Figure 1, Index 59) | 19 |
| IFA (Figure 2, Index 11) | 27 |
| ILS (Figure 1, Index 30) | 15 |
| INS Alignment Symbology (Figure 2) | 22 |
| INS CK (Figure 1, Index 57) | 19 |
| Introduction | 3 |
| L (Figure 1, Index 65) | 20 |
| LAND (Figure 1, Index 45) | 17 |
| Lubber Line (Figure 1, Index 62) | 9 |
| L4MAP (Figure 1, Index 21) | 14 |
| Magnetic Heading Pointer (Lubber Line) (Figure 1, Index 62) | 19 |
| MAN Option (Figure 2, Index 8) | 26 |
| Mark Option (Figure 1, Index 1) | 12 |
| NAVDSG/O/S (Figure 1, Index 12) | 13 |
| NCTR Data Set (Figure 1, Index 61) | 19 |
| NCTR Legend (Figure 1, Index 61) | 19 |
| O/S/NAVDSG (Figure 1 Index 12) | 13 |
| POS/INS (Figure 1, Index 38) | 16 |
| Position Error (Figure 1, Index 46) | 17 |
| Position Option Select (Figure 1, Index 40) | 16 |
| Present Position/Align Coordinates (Figure 2, Index 1) | 26 |
| QUAL (Figure 2, Index 3) | 26 |
| R (Figure 1, Index 63) | 20 |
| Range, TACAN (Figure 1, Index 36) | 16 |
| Range, Waypoint (Figure 1, Index 3) | 12 |
| SCL (Figure 1, Index 39) | 16 |
| SEA (Figure 1, Index 44) | 17 |
| SENSORS (Figure 1, Index 66) | 20 |
| SEQUFC (Figure 1, Index 53) | 18 |
| SEQ1 (Figure 1, Index 68) | 20 |
| SEQ2 (Figure 1, Index 68) | 20 |
| SEQ3 (Figure 1, Index 68) | 20 |
| Slew, Heading (Figure 3, Index 6) | 30 |
| SLEW X (Figure 1, Index 19) | 14 |
| SLV (Figure 3, Index 1) | 30 |
| SPD, CV (Figure 2, Index 6) | 26 |
| Speed, Aircraft (Figure 1, Index 19) | 14 |
| STD HDG (Figure 2, Index 5) | 26 |
| SYNC (Figure 3, Index 7) | 30 |
| TACAN Bearing Tail (Figure 1, Index 17) | 13 |
| TACAN Data (Figure 1, Index 58) | 19 |
| TACAN Digital Range and Bearing (Figure 1, Index 36) | 16 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| TACAN Pointer (Figure 1, Index 37) | 16 |
| TACAN Range (Figure 1, Index 36) | 16 |
| TACAN Station Ident, (Figure 1, Index 34) | 16 |
| TACAN Station Symbol (Figure 1, Index 32) | 16 |
| TACAN Time-To-Go (Figure 1, Index 35) | 16 |
| Target Situation Symbol (Figure 1, Index 27) | 15 |
| TCN (Figure 1, Index 33) | 16 |
| TDC Diamond (Figure 1, Index 2) | 12 |
| Time (Align) (Figure 2, Index 4) | 12 |
| Time Display (Figure 1, Index 14) | 13 |
| Time of Day (TOD) (Figure 1, Index 23) | 14 |
| Time-To-Go, TACAN (Figure 1, Index 36) | 16 |
| TIMEUFC (Figure 1, Index 18) | 13 |
| TOT (Figure 1, Index 62) | 19 |
| TRUE (Figure 1, Index 71) | 21 |
| True Airspeed (Figure 1, Index 19) | 14 |
| True Heading (Figure 1, Index 70) | 20 |
| True Heading Pointer (Figure 1, Index 70) | 20 |
| UFC (Figure 1, Index 55) | 18 |
| Update Options (Figure 1, Index 42) | 17 |
| UPDT (Figure 1, Index 41) | 16 |
| VEC (Figure 1, Index 26) | 15 |
| WARN ALT (Figure 1, Index 60) | 19 |
| Waypoint Bearing Tail (Figure 1, Index 13) | 13 |
| Waypoint Digital Range and Bearing (Figure 1, Index 3) | 12 |
| Waypoint Pointer Bearing (Figure 1, Index 29) | 15 |
| Waypoint Range (Figure 1, Index 3) | 12 |
| Waypoint Sequence Selected (Figure 1, Index 51) | 18 |
| Waypoint Sequenced Display (Figure 1, Index 68) | 20 |
| Waypoint Situation Symbol (Figure 1, Index 27) | 15 |
| Waypoint Time-to-go (Figure 1, Index 4) | 12 |
| Waypoint/TACAN Decrement (Figure 1, Index 11) | 13 |
| Waypoint/TACAN Increment (Figure 1, Index 9) | 12 |
| Waypoint/TACAN Number (Figure 1, Index 10) | 13 |
| WYPT A/A (Figure 1, Index 54) | 18 |
| WYPT Data (Figure 1, Index 49) | 17 |
| WYPT/OAP/TGT (Figure 1, Index 6) | 12 |
| WYPTS (Figure 2, Index 10) | 27 |

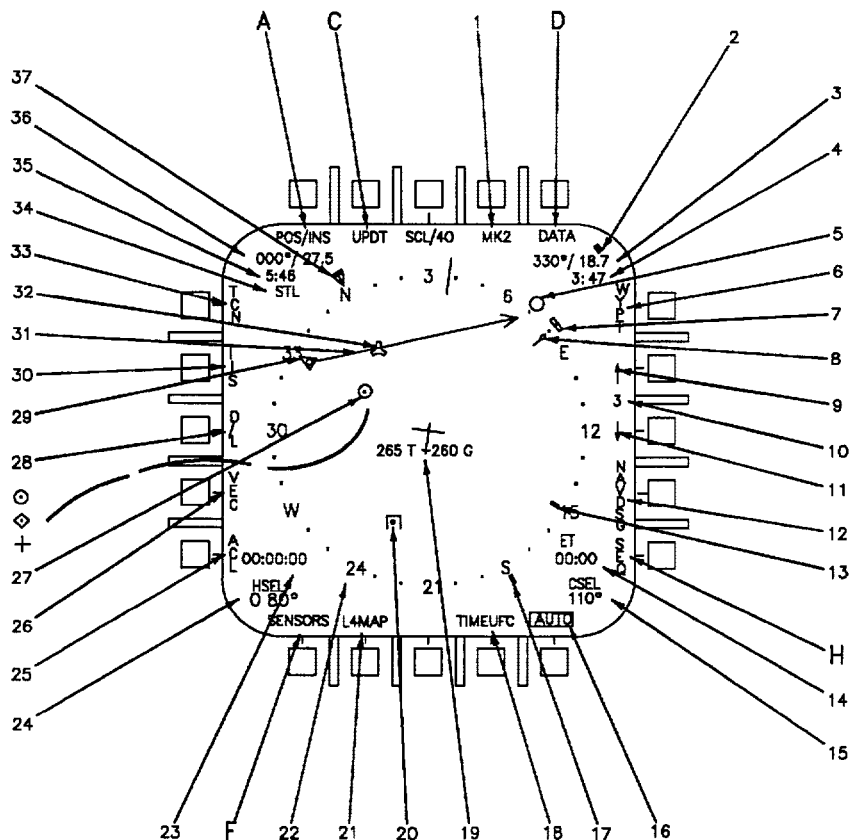
Record of Applicable Technical Directives

None

1. INTRODUCTION.

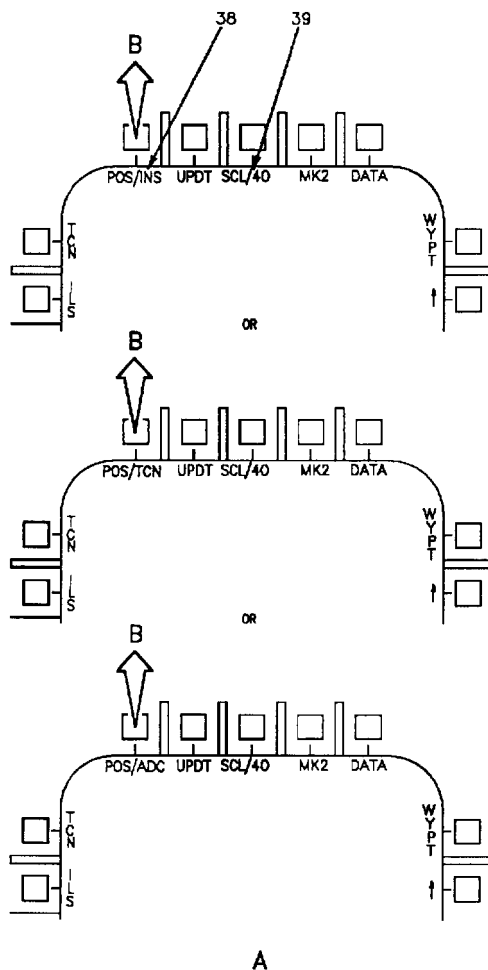
2. This work package contains illustrations and descriptions of the display elements common to HSI displays. The illustrations are not meant to represent

typical displays, but to provide general appearance and positioning of the elements which make up HSI displays. The descriptions may contain schematic reference which show the development of the display elements.



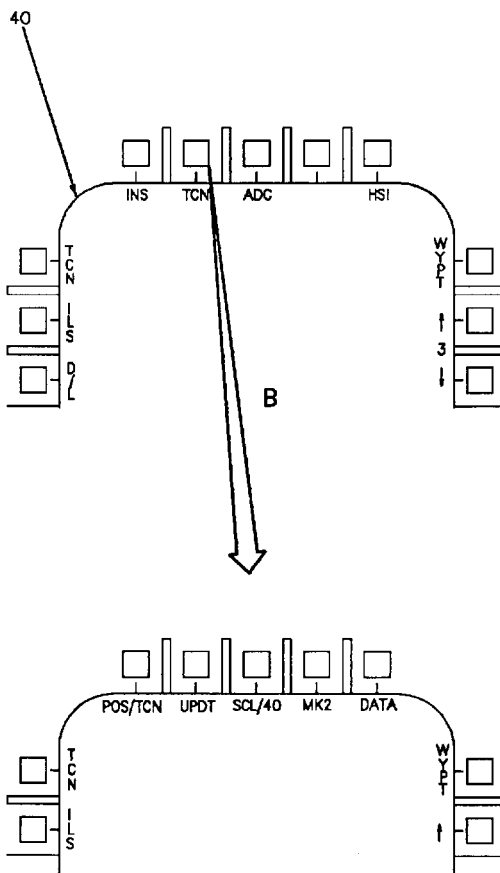
HSI-BASIC

Figure 1. HSI Symbology (Sheet 1)



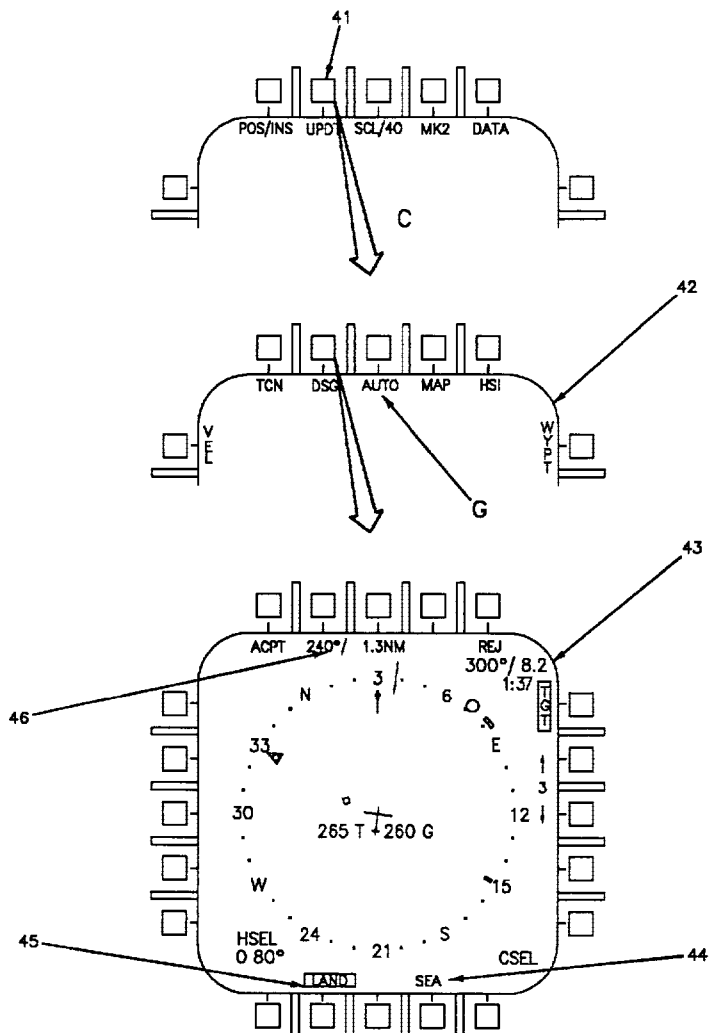
POSITION KEEPING OPTION

Figure 1. HSI Symbology (Sheet 2)



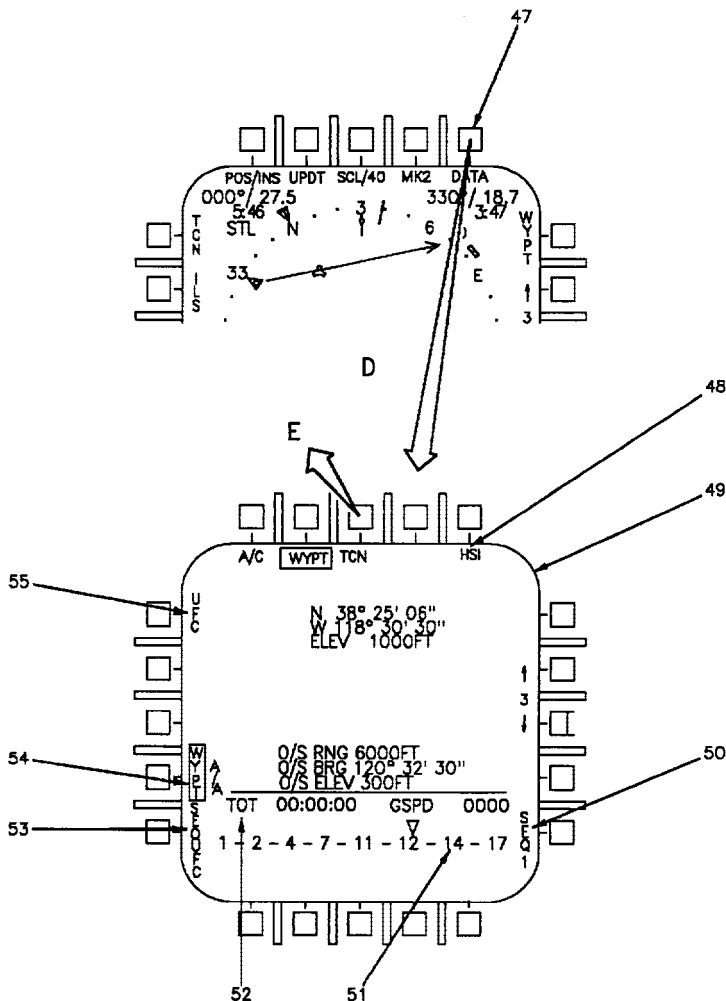
POSITION KEEPING OPTION

Figure 1. HSI Symbology (Sheet 3)



UPDATE OPTION

Figure 1. HSI Symbology (Sheet 4)



DATA OPTION

Figure 1. HSI Symbology (Sheet 5)

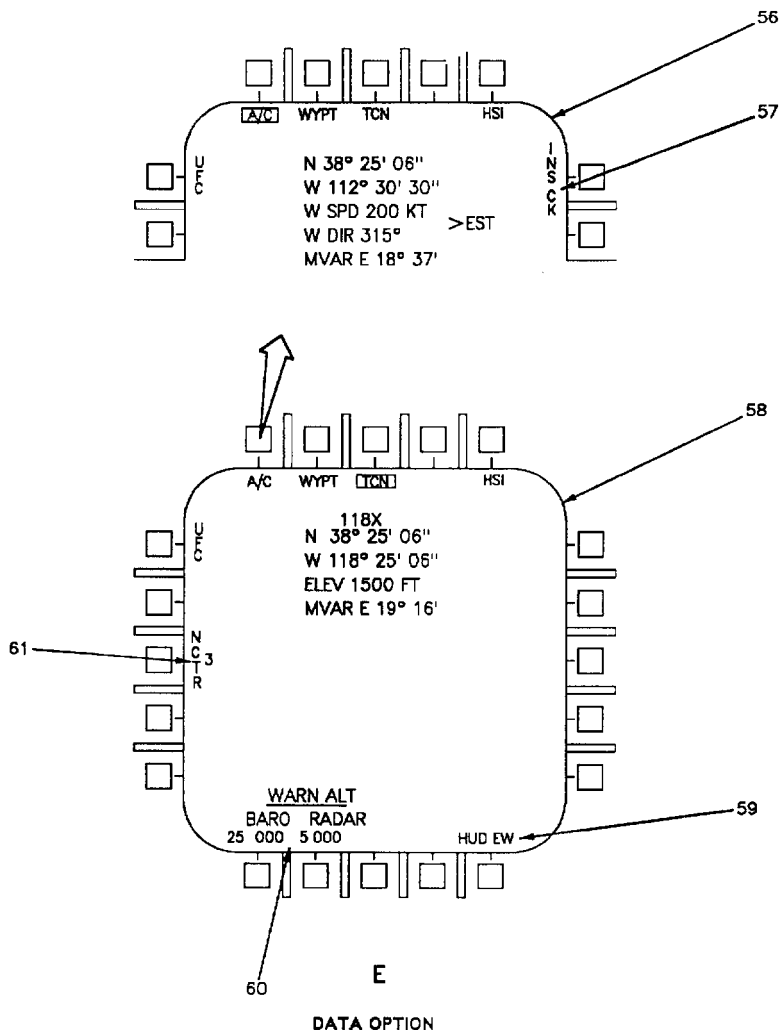


Figure 1. HSI Symbology (Sheet 6)

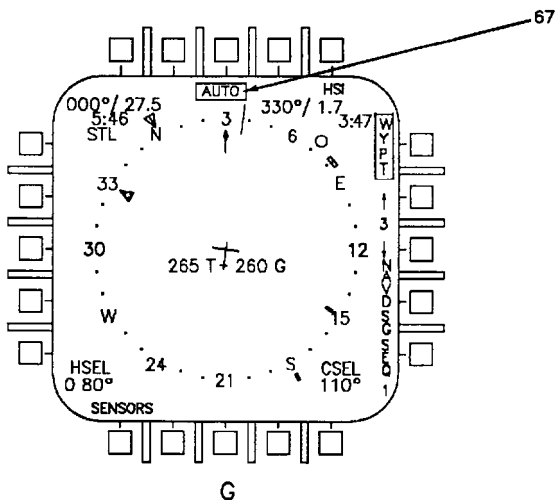
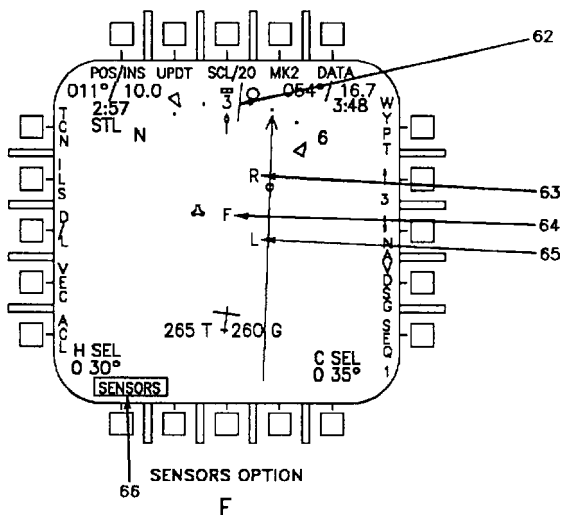
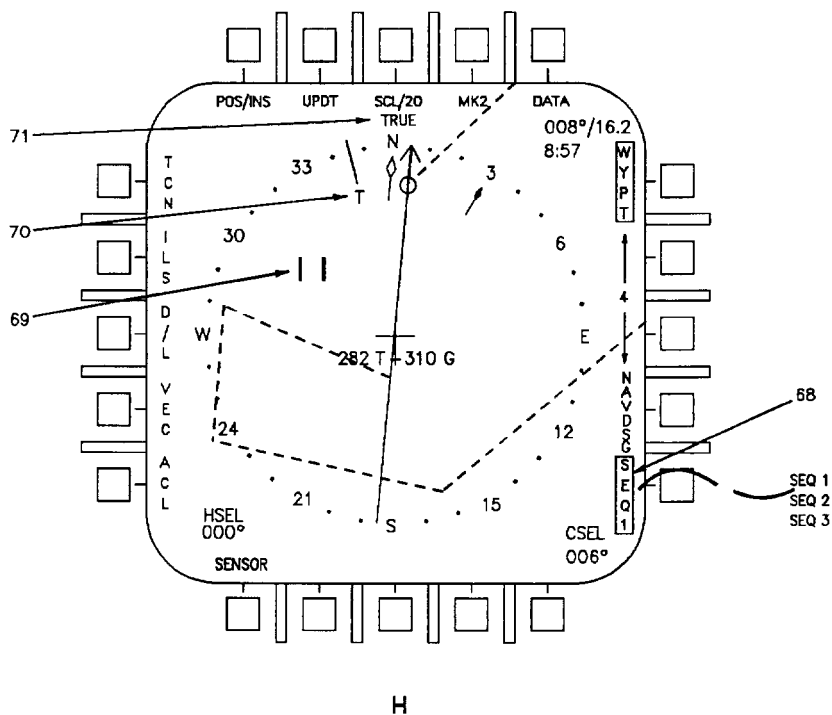


Figure 1. HSI Symbology (Sheet 7)



H

SEQUENCE OPTION

Figure 1. HSI Symbology (Sheet 8)



| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | Mark Option (ØHMKNØ) | If a ground point is not designated and option is selected, the latitude and longitude of the overfly point are stored. If ground point is designated, the computed latitude and longitude of the designated OAP or target are stored. Nine such options are available: MK1 thru MK9. Initially MK1 is displayed. First option selection advances the display to MK2. Subsequent selections cause MK3 thru MK9 and then MK1 to be displayed. (Bombing/Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| 2 | TDC Diamond (ØHTDCP) | Diamond displayed when throttle designator control (TDC) assigned to the Horizontal Indicator IP-1350/A (HI). SLEW displayed when TDC is assigned to HI for map slewing by pressing SLEW button. (Map Slew and Update Control Functional Schematic, A1-F18AC-745-500, WP012 00). |
| 3 | Waypoint Digital Range and Bearing (ØHWPTR) | Diamond displayed when throttle designator control (TDC) assigned to the Horizontal Indicator IP-1350/A (HI). SLEW displayed when TDC is assigned to HI for map slewing by pressing SLEW button. (Map Slew and Update Control Functional Schematic, A1-F18AC-745-500, WP012 00). Displayed if valid and not in data mode (index 41). Indicates the relative bearing and range in nautical miles to  selected waypoint or  to cursor (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 4 | Waypoint Time-to-go (ØHWPT0, ØHWPT2) | Indicates time-to-go to selected waypoint in hours, minutes, and seconds (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 5 | ADF Bearing (ØHCAPD) | Displayed if magnetic heading and ADF are valid when not in data mode (ADF System Functional Schematic, A1-F18AC-600-500, WP011 00). |
| 6 | WYPT/OAP/ TGT (ØHLKEY) (ØHLKEY) | Waypoint destination steering is selected from this pushbutton switch. When selected, legend appears in a box. WYPT steering is deselected when a point is designated. If selected waypoint has offset, OAP displayed. If target is designated, TGT displayed (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 7 | Command Heading Pointer (ØHCCHD) | Displayed if not in data mode and magnetic heading is valid. Positioned as function of HDG set switch (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 8 | Ground Track Pointer (Diamond) (ØHCGPD) | Displayed if not in data mode and magnetic heading is valid. Indicates aircraft ground track (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 9 | Waypoint/ TACAN Increment (ØHLKEY) | When WYPT DATA is selected, pushbutton selection increments waypoint number (index 10) from: 0 thru 24 and M1 thru M9. With M9 displayed, pushbutton selects waypoint 0. When TCN DATA is selected, pushbutton selection increments TACAN table number (index 10) from 0 thru 9. With 9 displayed, pushbutton select table number 0. Option is removed when A/C DATA is selected. (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |

Figure 1. HSI Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 10 | Waypoint/ TACAN Number (ØHCENO) | Indicates selected waypoint/mark number when WYPT DATA is displayed, or Tacan table number when TCN Data is displayed. Displayed number is incremented/decremented as described in indices 9 and 11. Number is removed when A/C Data is selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 11 | Waypoint/ TACAN Decrement Waypoint/ TACAN Decrement | When WYPT DATA is displayed, pushbutton selection decrements waypoint number (index 10) from: M9 thru M1 and 24 thru 0. With 0 displayed, pushbutton selects M9. When TCN DATA is displayed, pushbutton selection decrements TACAN table number (index 10) from 9 thru 0. With 0 displayed, pushbutton selects table number 9. Option is removed when A/C DATA is selected. (INS Align/BIT Displays Functional Schematic A1-F18AC-730-500, WP012 00). |
| 12 | O/S/ NAVDSG (ØHØKEY) | O/S displayed when OAP (index 6) is displayed. Legend appears in a box when selected. Steering is provided to offset point. Navigation designation option (NAVDSG) designates aimpoint of selected WYPT/OAP (index 6). Provides navigation coordinates previously entered on UFC. Not displayed if target or OAP already designated or if Digital Data Computer No. 2 (MC2) is failed (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 13 | Waypoint Bearing Tail (ØHCØØF) | Displayed diametrically opposite waypoint bearing pointer (index 29). Provides fly-from waypoint bearing data (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 14 | Time display (ØHTIMR, ØHTMRO ØHTMR2, ØHTMR4) | Countdown (CD) time or elapse time (ET) displayed when selected by way of UFC. |
| 15 | CSEL (ØHCRSD) | Course select displayed as function of CRS set switch. The exact digital value of the course selected is displayed (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 16 | AUTO (ØHAUTL) | When selected, provides great circle steering to waypoint if magnetic heading valid, aircraft present position valid, two or more waypoints stored in selected sequence, aircraft ground track valid, steering waypoint range/bearing valid, ground point not designated, AUTO UPDT pushbutton not pressed, TCN, ILS or DL steering pushbutton not depressed, or WYPT steering pushbutton not depressed. |
| 17 | TACAN Bearing Tail (ØHCØØF) | Displayed diametrically opposite TACAN bearing pointer (index 37). Provides fly-from TACAN bearing data (TACAN System Functional Schematic A1-F18AC-600-500, WP016 00). |
| 18 | TIMEUFC (ØHTIMB) | When selected, the UFC is commanded to provide the time options on the UFC display (ET, CD, and ZTOD). |

Figure 1. HSI Symbology (Sheet 10)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 19 | Aircraft Symbol, And Speed (SLEW X) (ØHCØØF, ØHGSPD, ØHTASX) | Aircraft symbol is displayed in a fixed position when not in data mode. True airspeed and ground speed are displayed if valid. Not displayed during map slewing (X displayed) (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 20 | A/A Radar Target (ØHAATX) | Displayed when aircraft is in A/A master mode and radar is in STT or TWS mode with a L&S target. Symbol is not displayed when target is outside the selected range of the HSI display (Bombing Navigation Functional Schematic, A1-F18AC-780-500, WP019 00). |
| 21 | L4MAP (ØHL4MK, ØHL4MB) | Displayed when aircraft is not in an INS alignment mode (CV, IFA, or GND), INS true heading is valid, INS is not in GYRO mode, and aircraft is not in velocity update. When pushbutton is pressed, LINK 4 display (WP014 00) is displayed on HI. Pushbutton legend is boxed when selected. When boxed legend on LINK 4 display is selected, LINK 4 display is removed and HI top level display is displayed (Vector Mode Coupled Heading Functional Schematic, A1-F18AC-630-510/(C), WP012 02). |
| 22 | Compass Rose (ØHCØMP) | The compass rose is displayed when not in data mode. Elongated radial at top of rose indicates aircraft heading. Radius of rose is 10, 20, 40, 80, or 160 nmi (See index 39) (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 23 | Time of Day (TOD) (ØHTØD0, ØHTØD2, ØHTØD4, ØHTØD6, ØHTØD8) | Indicates Time-of-Day (TOD) as entered by way of UFC. |
| 24 | HSEL (ØHCMDD) | Indicates the digital command heading (index 7). |
| 25 | ACL (ØHVPK0, ØHVPK2) | <p>ACL (automatic carrier landing) displayed in the NAV mode only. Pushbutton enables Data Link ACL mode.</p> <p>When selected:</p> <ol style="list-style-type: none"> 1. Data link system is turned on and tested. 2. ACL, D/L (index 28), and ILS (index 30) legends are boxed. 3. Radar beacon is turned on and tested. 4. ILS is turned on. 5. Data link and ILS steering is provided on HUD. 6. ACL mode LINK 4 display is provided on Digital Display Indicator (WP014 00). 7. Data link is set to ACL mode, 1-WAY operation, and selected operating frequency. <p>(Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00).</p> |

Figure 1. HSI Symbology (Sheet 11)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 26 | VEC (ØHVPB0, ØHVPB2) | Enables Data Link Vector mode. When selected: <ol style="list-style-type: none"> 1. Data link system is turned on and tested. 2. VEC legend is boxed. 3. Vector mode LINK 4 display is provided on Digital Display Indicator 4. Data link is set to vector mode, 2-WAY operation, and selected operating frequency. (Data Link System Vector Mode Functional Schematic A1-F18AC-630-510/(C), WP012 00). |
| 27 | Waypoint Situation Symbol (ØHWSIT, ØHCWØP, ØHWPTX) | Symbol indicates relative location of selected waypoint. If the selected waypoint is an OAP, the target situation symbol is displayed. If an OAP is designated, a diamond is displayed instead of the circle shown. Displayed when OAP or waypoint location is within selected map range (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| | Target Situation Symbol (ØHCWØP, ØHTGTS, ØHTGTX) | Displayed as a plus sign until the target is designated. A diamond is displayed when the target is designated with no OAP. The target symbol is not limited when it is outside the compass rose except when the target is designated. When designated, the target diamond is limited to the compass edge. The target diamond is not limited at the compass edge and the OAP circle is not limited if it is outside the compass range. The target symbol is also not displayed when OAP steering is not selected and the OAP or associated offset has not been designated (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| 28 | D/L (ØHLKEY) | ACL mode lateral and vertical glideslope steering data from Data Link are provided and displayed on HUD when this pushbutton switch is pressed. Legend appears in a box when selected. Automatically selected when ACL (index 25) is pressed. (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP007 00). |
| 29 | Waypoint Pointer Bearing (ØHCDPD) | Indicates bearing of selected waypoint (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| 30 | ILS (ØHLKEY) | Instrument landing system (ILS) steering displayed on HUD when this pushbutton switch is pressed. Legend appears in a box when selected. Automatically selected when ACL (index 25) is pressed (Instrument Landing System Functional Schematic, A1-F18AC-630-500, WP004 00). |
| 31 | Course Line (ØHCRSL) | Displayed when course is selected with course select switch. Line is displayed through waypoint (not OAP) symbol (index 27) when WYPT steering is selected or through TACAN station symbol (index 32) when TCN steering is selected. Course line removed when map is slewed (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |

Figure 1. HSI Symbology (Sheet 12)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------------|---|
| 32 | TACAN Station Symbol (ØHTCNX) | Symbol indicates relative position of selected TACAN station, if TACAN range and bearing are valid. Displayed when TACAN station location is within selected map range (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 33 | TCN (ØHLKEY) | Destination steering to selected TACAN station is provided when this pushbutton switch is pressed, provided TCN position keeping or TCN update mode not selected. Legend appears in a box when selected. TCN steering is deselected when a point is designated (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 34 | TACAN Station Ident (ØHTSCO) | Station ident from selected TACAN station is displayed if valid (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 35 | TACAN Time-To-Go (ØHTCTO) | Computed time remaining until arrival at selected TACAN station in minutes and seconds is displayed if valid (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 36 | TACAN Digital Range (ØHTCRO, ØHTCBO) | Range to selected TACAN station in nmi is displayed if aircraft TACAN range is valid. Bearing to selected TACAN station is displayed if valid (TACAN Bearing System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 37 | TACAN Pointer (ØHCØØF) | Indicates bearing of selected TACAN station. Displayed if TACAN bearing is valid (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 38 | POS/INS (ØHPTKO) | POS/INS, POS/TCN, or POS/ADC is displayed, based on selected position keeping data source. Pushbutton switch action causes sublevel display (index 40) (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 39 | SCL (ØHSMRO) | Indicates operating scale selection. SCL/10 and SCL/40 select projected map display. Numbers 160, 80, 40, 20, and 10 indicate in miles, radius of compass rose (index 22) (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 40 | Position Option Select (ØHLKEY) | Selection of INS, TCN, or ADC from top pushbutton switch causes position keeping function to be done by selected source. Display returns to basic format with POS/INS, POS/TCN, or POS/ADC displayed, indicating selected option (Navigation Velocity and Position Keeping Functional Schematic, (A1-F18AC-730-500, WP018 00). |
| 41 | UPDT (ØHLKEY) | Position updating may be used to update the INS position or to update position while in air data dead reckoning. Pressing UPDT pushbutton switch causes sublevel display (index 42) (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |

Figure 1. HSI Symbology (Sheet 13)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 42 | Update Options (ØHLKEY) | Designation (DSG), TACAN (TCN), automatic (AUTO), projected map (MAP), and velocity (VEL) are offered as position update sources. The HSI pushbutton switch returns the normal HSI display. When AUTO pushbutton is selected, TCN, DSG, MAP, and VEL options are removed and AUTO update sublevel is displayed (index 67). The MAP pushbutton switch assigns TDC to HSI for map slewing TCN, DSG, and VEL pushbutton switch cause sublevel display (index 43) (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 43 | ACPT/REJ (ØHLKEY) | Pilot may either accept (ACPT) or reject (REJ) velocity errors (index 46) and display returns to basic (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 44 | SEA (ØHMANB, ØRLSØP) | Displayed when velocity (VEL) update selected. When SEA pushbutton switch is selected, radar look down angle is adjusted for optimum sea return (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 45 | LAND (ØHMANB, ØRLSØP) | Displayed when velocity (VEL) update selected. When LAND pushbutton switch is selected, radar look down angle is adjusted for optimum land return (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 46 | Position Error (ØHUEUO, ØHUREO, ØHUBEO) | Position error readout in degrees and nautical miles (knots if VEL update) is displayed (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 47 | DATA (ØHLKEY) | DATA selection calls up the data display, with the data options of aircraft (A/C), waypoint (WYPT) and TACAN (TCN). HSI (index 48) and UFC (index 55) options are also displayed. WYPT is automatically the selected data option when the DATA pushbutton is pressed (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 48 | HSI (ØHDATA) | Selecting HSI when any data sublevel display (A/C, WYPT, TCN) is displayed returns the basic display. (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 49 | WYPT Data (ØHDATA) | Waypoint/OAP/offset data is displayed when WYPT data is selected (WYPT boxed). WYPT is automatically selected when Data (index 47) is selected. The waypoint/OAP number is incremented/decremented as described in indices 9 thru 11 and data are displayed for all waypoints and marks. Data for a waypoint/OAP may be entered/updated by selecting UFC (index 55) to enable the electronic equipment control to display data options and accept data entry. When new position data for an OAP are entered, previously stored O/S range and bearing are set to zero and O/S elevation is set the same as the new waypoint/OAP elevation unless changed by UFC O/S data entry. Selecting HSI (index 48) returns the basic display. Selecting A/C (index 56) or TCN (index 58) selects aircraft or tacan data sublevel display. (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |

Figure 1. HSI Symbology (Sheet 14)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 50 | Waypoint Sequence Selected (ØHWSQX) | Indicates waypoint sequence selected (index 68). Pointer above a waypoint indicates the next waypoint destination (Auto Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 51 | GSPD (ØHGSPD, ØHGSPT) GSPD (ØHGSPD, ØHGSP2) | <p>Displayed as part of direct path time-on-target (TOT) or sequence path TOT calculations.</p> <p>For direct path TOT, the MC uses entered values of TOT, target waypoint number, and time-of-day (all entered by way of UFC) to determine ground speed required to achieve the entered TOT (index 52).</p> <p>For sequence path TOT, the MC uses entered values of TOT, target waypoint number, ground speed to target from last leg of waypoint sequence, and time-of-day to determine the ground speed required to achieve the entered TOT over the selected waypoint sequence (target) (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00).</p> |
| 52 | TOT (ØHTØTO, ØHTØT2, ØHTØT4, ØHTØT6) | Indicates time remaining to target. Time-to-target is calculated by the MC from the time-on-target and target waypoint ground speed entered by way of the UFC (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 53 | SEQUFC (ØHDATA) | When pushbutton is pressed, allows for waypoint sequencing data to be entered by way of UFC (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 54 | WYPT A/A (ØHDATA, ØHAWBX) | When pushbutton is pressed, MC will box WYPT and display the current selected waypoint (or mark) on the A/A radar display (WP007 00). |
| 55 | UFC (ØHDATA) | UFC Selection on any data sublevel (A/C, WYPT, TCN) display enables the electronic equipment control to display data entry options and accept data entry. When DATA is selected on the HI mode switch, the UFC legend is displayed. Selection of UFC enables the electronic equipment control to display the DATA option and accept data frame number entry. (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 56 | A/C Data (ØHDATA, ØHLATO) | <p>The present position of the aircraft, the windspeed and direction, and the computed magnetic variation are displayed when A/C data is selected (A/C boxed). If position keeping is by ADC, EST (estimated) is displayed next to wind data. If the MAD function fails, EST is displayed next to MVAR data.</p> <p>A/C data may be entered/updated by selecting UFC (index 55) to enable the electronic equipment control to display data options and accept data entry.</p> <p>Selecting HSI (index 48) returns the basic display.</p> <p>Selecting WYPT (index 49) or TCN (index 58) selects the waypoint or Tacan data sublevel.</p> |

Figure 1. HSI Symbology (Sheet 15)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 57 | INS CK (ØHINSK) | (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). When pushbutton is pressed, aircraft velocity, ADC air mass velocity, ADC altitude rate, wind velocity, best available MC ground speed, and best available MC true airspeed (Navigation, Velocity and Position Keeping Functional Schematic, A1-F18AC-730-504 WP018 00). |
| 58 | TACAN Data (ØHDATA, ØHCTCO) | Tacan data is displayed when TCN data is selected (TCN boxed). Up to 10 Tacan sets of Tacan data are stored. The Tacan table number is incremented/decremented as described in indices 9 thru 11. Tacan table data may be entered/updated by selecting UFC (index 55) to enable the electronic equipment control to display data options and accept data entry. Selecting HSI (index 48) returns the basic display. Selecting WYPT (index 49) or A/C (index 56) selects the waypoint or aircraft data sublevel display. (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 59 | HUD EW (ØH1NDX, ØH8NDØ) | When selected, pushbutton enables RWR threats to be displayed on HUD. Pushbutton available in HI DATA modes only (Controls, Displays and Audio Schematic, A1-F18AC-760-500, WP021 00). |
| 60 | WARN ALT (ØHDATA, ØHWACO) WARN ALT (ØHDATA, ØHWACO) WARN ALT (ØHDATA, ØHWACO) WARN ALT (ØHDATA, ØHWACO) | When WARN ALT BARO pushbutton is pressed, the UFC is enabled allowing for BARO altitude entry up to a maximum of 25,000 feet. When the aircraft passes through BARO setting the "Altitude Altitude" voice alert will be enabled. Initialized When WARN ALT BARO pushbutton is pressed, the UFC is enabled allowing for BARO altitude entry up to a maximum of 25,000 feet. When the aircraft passes through BARO setting the "Altitude Altitude" voice alert will be enabled. Initialized When WARN ALT BARO pushbutton is pressed, the UFC is enabled allowing for BARO altitude entry up to a maximum of 25,000 feet. When the aircraft passes through BARO setting the "Altitude Altitude" voice alert will be enabled. Initialized When WARN ALT BARO pushbutton is pressed, the UFC is enabled allowing for BARO altitude entry up to a maximum of 25,000 feet. When the aircraft passes through BARO setting the "Altitude Altitude" voice alert will be enabled. Initialized |
| 61 | NCTR Data Set (ØH6ND1) NCTR Legend (ØH7NDØ) | When selected, mission computer system sends the current data set number (1-6) to the radar system. Pushbutton available in HI DATA modes only. |
| 62 | Magnetic Heading Pointer (Lubber Line) (ØHCACH) | Indicates magnetic heading of the aircraft. When magnetic heading is valid, this symbol is displayed in direct line with the aircraft symbol (index 19) superimposed on the compass rose (index 22) (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |

Figure 1. HSI Symbology (Sheet 16)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 63 | R (ØHRDRX) | Displayed when radar is operational, throttle designator control (TDC) is assigned to radar, and SENSORS pushbutton switch pressed. Indicates center point of radar search area. Not displayed when aircraft magnetic heading is invalid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-504 WP011 00). |
| 64 | F (ØHFLRX) | Displayed when Forward Looking Infrared System (FLIR) is operational, TDC is assigned to FLIR, and SENSORS pushbutton switch is pressed. Indicates center point of FLIR field of view. Not displayed when aircraft magnetic heading is invalid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 65 | L (ØHLSTX) | Displayed when Laser Spot Tracker System (LST) is operational and SENSORS pushbutton switch is pressed. Indicates center point of LST scan pattern. Not displayed when aircraft magnetic heading is invalid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 66 | SENSORS (ØHMANB) | Selection of SENSORS pushbutton switch provides sensor footprint display. Display is dependent on operating status of sensors (radar, FLIR, LST) and on TDC assignment. All indications (R, F, L) displayed when TDC assigned to HSI. SENSORS pushbutton legend not displayed when an aimpoint is designated, A/A master mode selected, or when sublevel options are displayed (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 67 | AUTO (ØHAUTK) | When selected, allows for an overfly designation on the selected OAP or waypoint. When performed on the OAP, the aircraft present position is automatically updated, the OAP is designated and the stored offset data is added to complete the target designation. When performed on a waypoint, the aircraft present position is automatically updated and the next navigation destination number is selected and designated to become the designated OAP or target (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 68 | SEQ1, SEQ2, SEQ3 (Waypoint Sequenced Boundary) (ØHSEQL, ØHHSQN) | When SEQ pushbutton is pressed on HSI basic display, any one of three stored sequences can be selected. When a selected sequence is selected and boxed, dashed lines are displayed connecting the waypoints in the selected sequence (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 69 | Cursor | Displayed and positioned as a function of the Throttle Designator Control (TDC) switch. Depression of the TDC when the cursor bars enclose the waypoint or OAP, designates that waypoint or OAP (Map Slew and Update Control Simplified Schematic, A1-F18AC-745-500, WP023 00). |
| 70 | TRUE Heading Cue/ Pointer (ØHTHTX) | Displayed when true heading reference is active. The letter T cue is displayed on the end of the magnetic heading pointer (lubber line) closest to the center of the display (Horizontal Indicator IP-1350/A Basic Displays Simplified Schematic, A1-F18AC-745-500, WP021 00). |

Figure 1. HSI Symbology (Sheet 17)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 71 | TRUE | Displayed when true heading reference is active (Horizontal Indicator IP-1350/A Basic Displays Simplified Schematic, A1-F18AC-745-500, WP021 00). |
| LEGEND | | |
| 1 | Digital Data Computer CONFIG/IDENT Number 87X (A1-F18AC-SCM-000). | |
| 2 | Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000). | |
| 3 | Digital Data Computer CONFIG/IDENT Number 92A AND UP (A1-F18AC-SCM-000). | |

Figure 1. HSI Symbology (Sheet 18)

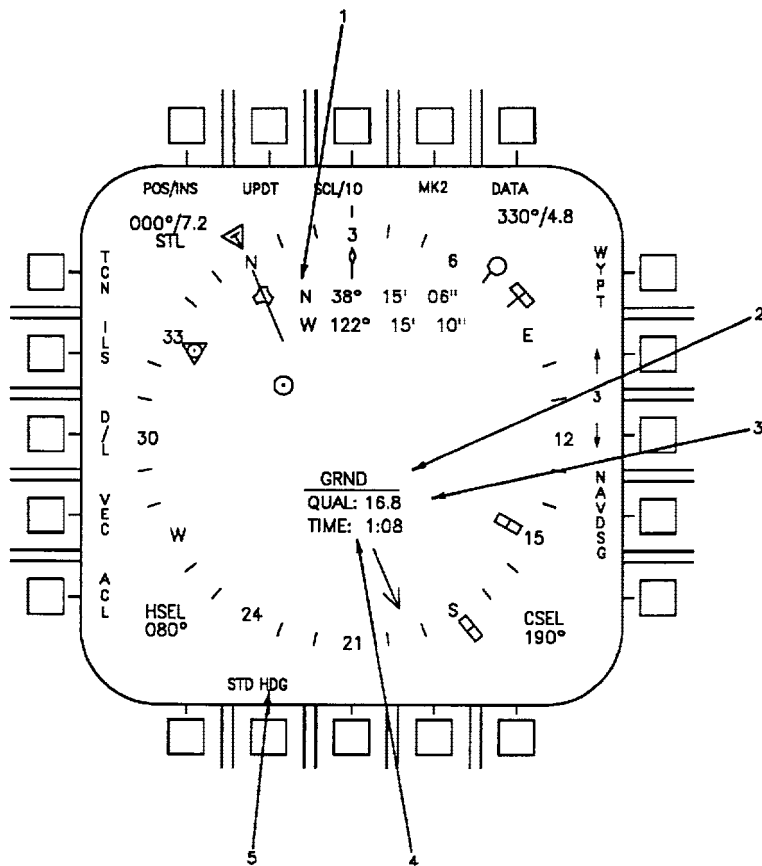


Figure 2. INS Alignment Symboly (Sheet 1)

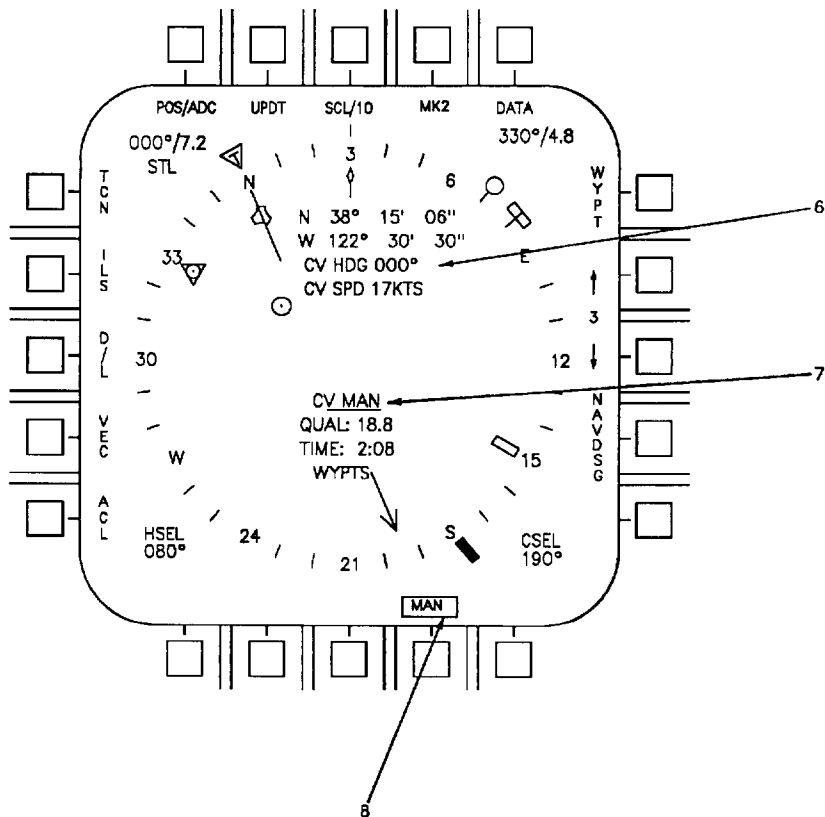


Figure 2. INS Alignment Symbology (Sheet 2)

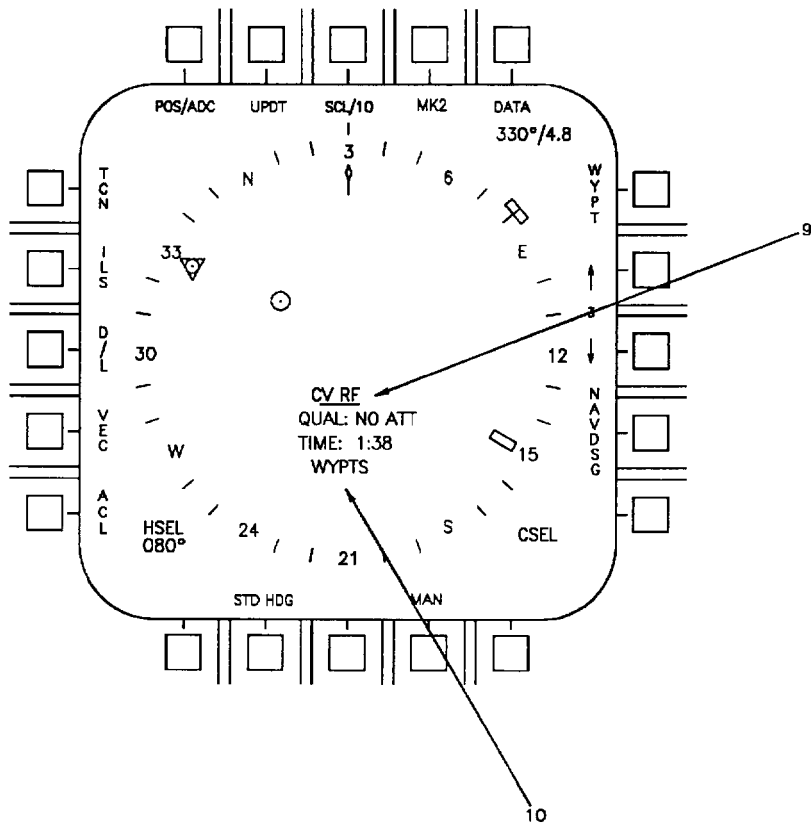


Figure 2. INS Alignment Symbology (Sheet 3)

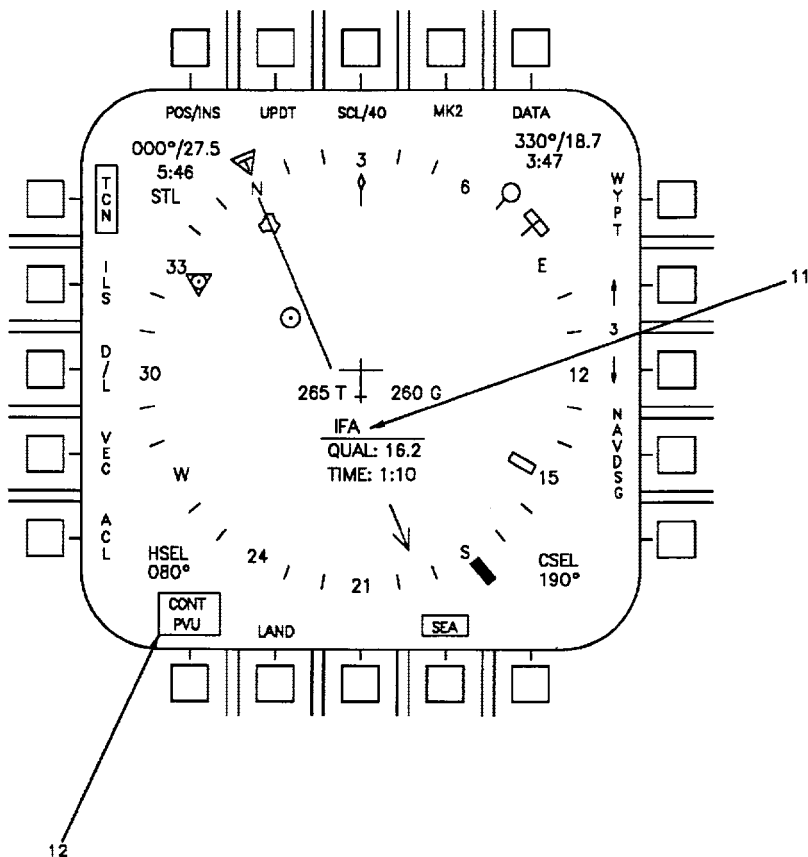


Figure 2. INS Alignment Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | Align Coordinates/ Present Position (ØHDATA) | Indicates present position of aircraft. Displayed in GRND align mode (index 2) and CV MAN align mode (index 7) only. Displayed coordinates are removed when align mode is deselected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 2 | GRND (ØHNRDR) | Indicates that INS is in the ground align mode (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 3 | QUAL (ØHALNQ) | Indicates the quality of the alignment numerically during the alignment process. For the first 1 to 2 minutes of alignment, NO ATT legend indicates INS provided attitude is not reliable. NO ATT replaced by QUAL number when displayed, indicates the INS begins gyro-compassing. Number decreases proportionally and is the estimated accuracy of INS present position (index 1). When INS has reached an acceptable level, "OK" is displayed next to the QUAL number (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 4 | TIME (ØHALNT) | Indicates time in align in minutes and seconds. When the parking brake is released, the INS enters align hold and time is stopped while in hold. Time flashed when in inflight align (index 11) and radar not operating in PVU, when INS in align hold, or when EMCON selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 5 | STD HDG (ØHSTDK) | <p>Stored heading option provides accurate heading before gyro-compassing phase of alignment, reducing the time required to complete alignment. Stored heading option available when:</p> <ol style="list-style-type: none"> 1. Parking brake set. 2. Completion of a previous alignment and INS set to OFF, without going to NAV. 3. Weight on wheels. Legend boxed when selected. <p>Option removed when selection would no longer reduce align time (INS Align/BIT Display Functional Schematic, A1-F18AC-730-500, WP012 00).</p> |
| 6 | CV HDG/ CV SPD (ØHALND) | Indicates carrier heading and speed entered via UFC for CV MAN alignment mode (index 7) (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 7 | CV MAN (ØHCVTO) | Indicates CV manual alignment mode selected (index 8). Flashed when SINS data not valid (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 8 | MAN Option (ØHMANB) | Displayed if CV alignment is selected. Pushbutton switch selects CV MAN alignment. Legend boxed when selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 9 | CV RF/CBL (ØHCVTO) | CV RF displayed if CV alignment is selected, MAN option not selected, and SINS umbilical cable not connected CV CBL displayed if CV alignment is selected, MAN option not selected, and SINS umbilical cable connected. CV RF and CV CBL flashed when SINS data not valid (INS Align/BIT Displays Functional Schematic A1-F18AC-730-500, WP012 00 and Data Link System Alignment and Waypoint Mode Functional Schematic, A1-F18AC-630-110/(C), WP011 00). |

Figure 2. INS Alignment Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------|--|
| 10 | WYPTS (ØHNØWP) | For CV CBL or CV RF alignment, indicates that all 10 waypoints have been received. NO WYPTS is displayed when waypoints not received and data link align mode is selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00 and Data Link System Alignment and Waypoint Mode Functional Schematic, A1-F18AC-630-110/(C), WP011 00). |
| 11 | IFA (ØHNRDR) | Indicates inflight alignment mode selected. IFA commands radar PVU mode when IFA selected and for 10 seconds of each minute after IFA selection. If radar not available, time in align (index 4) is flashed (INS Align/BIT Displays Functional Schematic A1-F18AC-730-500, WP012 00). |
| 12 | CONT PVU (ØH4DUM, ØH5DUM) | <p>CONT PVU is selected when radar is on and IFA selected (option is boxed). CONT PVU option is not displayed if radar is off.</p> <p>When pressed and released, the option becomes not boxed, the mission computer commands the radar to return to its last selected mode and PVU mode is selected for 10 seconds of each minute. When pressed and released again, the option is boxed, and causes mission computer to command the radar to return to a continuous PVU mode (INS Align/Bit Displays Schematic, A1-F18AC-730-500, WP012 00).</p> |

Figure 2. INS Alignment Symbology (Sheet 6)

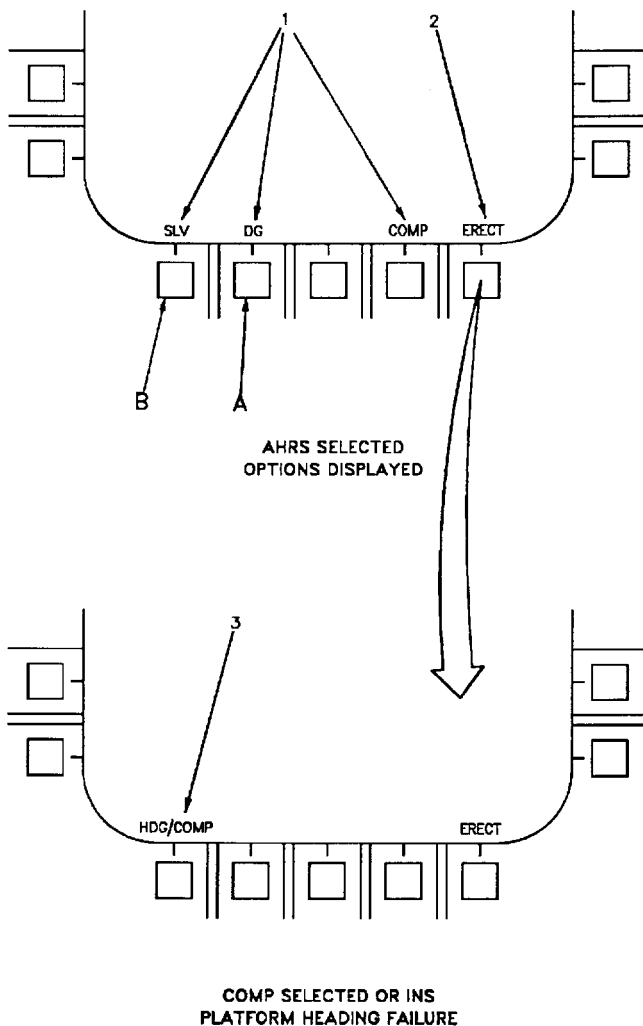
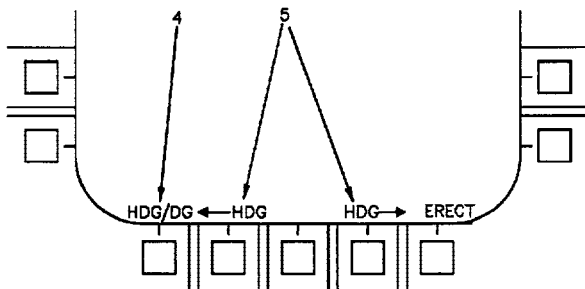
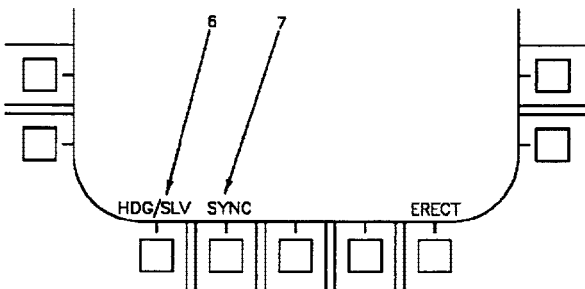


Figure 3. Backup Navigation Symbolology (Sheet 1)



DG SELECTED OR INS REVERTED
TO AHRS, MAD NOT VALID

A



SLV SELECTED OR INS REVERTED
TO AHRS, MAD VALID

B

Figure 3. Backup Navigation Symbolology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------|---|
| 1 | SLV, DG, COMP (ØHØPTK) | SLV, DG And COMP options displayed when ADC position keeping is selected by the mission computer system (MC) with an INS failure. Pressing SLV, DG, or COMP pushbutton switch causes display to change as shown, if mode is available. If mode is not available, next best mode is selected by the MC (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 2 | ERECT (ØHØPTK) | Displayed for all backup navigation modes. Pressing ERECT pushbutton switch provides fast leveling of INS (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 3 | HDG/COMP (ØHØPTX) | In the compass (COMP) mode, the MC uses the MAD output as the source of magnetic heading and the last known or pilot entered value of magnetic variation to computer true heading. Pressing the HDG/COMP pushbutton switch causes heading options (index 1) to be displayed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 4 | HDG/DG (ØHØPTK) | Pressing the HDG/DG pushbutton switch causes heading options (index 1) to be displayed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 5 | Heading Slew (ØHØPTK) | In the directional gyro (DG) mode, the aircraft heading is corrected by pressing and holding the heading slew pushbutton switches (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 6 | HDG/SLV (ØHØPTK) | Pressing the HDG/SLV pushbutton switch causes heading options (index 1) to be displayed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 7 | SYNC (ØHØPTK) | SYNC option slaves the magnetic heading from the MAD to the INS/AHRS when pressed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |

Figure 3. Backup Navigation Symbology (Sheet 3)

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****HSI DISPLAY SYMBOLOGY****EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292**

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| A/A Radar Target (Figure 1, Index 28) | 14 |
| A/A WYPT (Figure 1, Index 53) | 21 |
| A/C Data (Figure 1, Index 55) | 21 |
| ACL Option (Figure 1, Index 29) | 17 |
| ACPT/REJ (Figure 1, Index 41) | 19 |
| ADF Bearing (Figure 1, Index 22) | 16 |
| Aircraft Speed (Figure 1, Index 11) | 15 |
| Aircraft Symbol (Figure 1, Index 11) | 15 |
| Align Coordinates (Figure 2, Index 1) | 29 |
| AUTO Option (Figure 1, Index 8) | 29 |
| AUTO Update Select (Figure 1, Index 70) | 24 |
| Backup Navigation Symbology (Figure 3) | 31 |
| Boresight TOO Launch Segment (Figure 4, Index 2) | 38 |
| Brightness Number (Figure 1) | 5 |
| CANCEL (Figure 1, Index 44) | 19 |
| Command Heading Pointer (Figure 1, Index 24) | 16 |
| COMP (Figure 3, Index 1) | 33 |
| Compass Rose (Figure 1, Index 12) | 15 |
| CONT PVU (Figure 2, Index 12) | 30 |
| Contrast Number (Figure 1) | 5 |
| Control Point Segment (Figure 4, Index 4) | 38 |
| Course Line (Figure 1, Index 16) | 16 |
| CPL Status (Figure 1, Index 71) | 24 |
| CSEL (Figure 1, Index 26) | 17 |
| CV HDG (Figure 2, Index 6) | 29 |
| CV MAN (Figure 2, Index 7) | 29 |
| CV RF/CBL (Figure 2, Index 9) | 30 |
| CV SPD (Figure 2, Index 6) | 29 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| DATA Option (Figure 1, Index 47) | 20 |
| DCTR (Figure 1) | 5 |
| DG (Figure 3, Index 1) | 33 |
| Distance to Descent (Figure 1, Index 23) | 16 |
| (Figure 1, Index 34) | 18 |
| ERECT (Figure 3, Index 2) | 33 |
| F (Figure 1, Index 68) | 23 |
| Fuel at Tacan Station (Figure 1, Index 34) | 18 |
| Fuel at Waypoint (Figure 1, Index 23) | 16 |
| Cockpit Display Format Data (Figure 1) | 5 |
| GPWS (Figure 1, Index 57) | 22 |
| GREF ON/OFF Option (Figure 1, Index 73) | 24 |
| GRND (Figure 2, Index 2) | 29 |
| Ground Track Pointer (Diamond) (Figure 1, Index 21) | 16 |
| GSPD (Figure 1, Index 51) | 20 |
| GSPD Required (Figure 1, Index 10) | 15 |
| Harpoon Flightpath (Figure 1) | 5 |
| HDG/COMP (Figure 3, Index 3) | 33 |
| HDG/DG (Figure 3, Index 4) | 33 |
| HDG/SLV (Figure 3, Index 6) | 33 |
| HDG MAG (Figure 1, Index 56) | 21 |
| HDG TRUE (Figure 1, Index 56) | 21 |
| Heading Slew (Figure 3, Index 5) | 33 |
| HSEL (Figure 1, Index 13) | 15 |
| HSI Option (Figure 1, Index 48) | 20 |
| HSI Symbology (Figure 1) | 5 |
| HSI Weapon Symbology (Figure 4) | 34 |
| IFA (Figure 2, Index 11) | 30 |
| ILS Option (Figure 1, Index 32) | 17 |
| In Range Circle (Figure 4, Index 3) | 38 |
| INS Alignment Symbology (Figure 2) | 25 |
| INSCK Data (Figure 1, Index 63) | 23 |
| Introduction | 4 |
| (Figure 1, Index 69) | 23 |
| LAND (Figure 1, Index 43) | 19 |
| Launch Acceptability Region (Figure 4, Index 7) | 39 |
| Launch Point Symbol (Figure 4, Index 3) | 38 |
| Magnetic Heading Pointer (Lubber Line) (Figure 1, Index 66) | 23 |
| AMAN Option (Figure 2, Index 8) | 29 |
| MAP (Figure 1) | 5 |
| Mark Option (Figure 1, Index 1) | 14 |
| Maximum Pull-up Range (Figure 4, Index 5) | 38 |
| MDATA Option (Figure 1, Index 62) | 22 |
| MENU (Figure 1) | 5 |
| Minimum Range Arc (Figure 4, Index 8) | 39 |
| MODE (Figure 1, Index 31) | 17 |
| NAVCK (Figure 1, Index 64) | 23 |
| NAVDGS (Figure 1, Index 6) | 14 |
| NO ATT (Figure 2, Index 3) | 29 |
| NO WYPTS (Figure 2, Index 10) | 30 |
| N UP (Figure 1) | 5 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| O/S (Figure 1, Index 6) | 14 |
| Off Axis Launch Segment (Figure 4, Index 2) | 38 |
| PB/EOM Missile Field of View (Figure 4, Index 6) | 39 |
| POS/XXX (Figure 1, Index 36) | 18 |
| Position Error (Figure 1, Index 45) | 20 |
| Position Option Select (Figure 1, Index 38) | 18 |
| Present Position (Figure 2, Index 1) | 29 |
| QUAL (Figure 2, Index 3) | 29 |
| R (Figure 1, Index 67) | 23 |
| SCL (Figure 1, Index 37) | 18 |
| SEA (Figure 1, Index 42) | 19 |
| SENSORS (Figure 1, Index 74) | 24 |
| SEQUCF Option (Figure 1, Index 52) | 21 |
| SEQ1 (Figure 1, Index 72) | 24 |
| SEQ2 (Figure 1, Index 72) | 24 |
| SEQ3 (Figure 1, Index 72) | 24 |
| SLAM Target (Figure 4, Index 3) | 38 |
| SLEW (Figure 1) | 5 |
| SLV (Figure 3, Index 1) | 33 |
| STD HDG (Figure 2, Index 5) | 29 |
| SYNC (Figure 3, Index 7) | 33 |
| TACAN Bearing Tail (Figure 1, Index 27) | 17 |
| TACAN Data (Figure 1, Index 58) | 22 |
| TACAN Digital Range and Bearing (Figure 1, Index 20) | 16 |
| TACAN Decrement (Figure 1, Index 5) | 14 |
| TACAN Increment (Figure 1, Index 5) | 14 |
| TACAN Number (Figure 1, Index 5) | 14 |
| TACAN Pointer (Figure 1, Index 35) | 18 |
| TACAN Station Ident (Figure 1, Index 18) | 16 |
| TACAN Station Symbol (Figure 1, Index 17) | 16 |
| TACAN Time-To-Go (Figure 1, Index 19) | 16 |
| TAC BLIM (Figure 1, Index 61) | 22 |
| TAKE (Figure 1) | 5 |
| TAKE/MENU (Figure 1) | 5 |
| Target Situation Symbol (Figure 1, Index 14) | 15 |
| TCN Option (Figure 1, Index 33) | 18 |
| TDC Assignment Symbol (Figure 1, Index 75) | 24 |
| TDC Diamond (Figure 1, Index 75) | 24 |
| TIME (Figure 2, Index 4) | 29 |
| Time Display (Figure 1, Index 7) | 14 |
| TIMEUFC (Figure 1, Index 9) | 15 |
| TOT (Figure 1, Index 51) | 20 |
| True Heading Cue (Figure 1, Index 46) | 20 |
| True Heading Pointer (Figure 1, Index 46) | 20 |
| T UP (Figure 1) | 5 |
| UFC (Figure 1, Index 54) | 21 |
| Update Options (Figure 1, Index 40) | 19 |
| UPDT (Figure 1, Index 39) | 18 |
| VEC Option (Figure 1, Index 30) | 17 |
| VEL CK Option (Figure 1, Index 65) | 23 |
| WARN ALT (Figure 1, Index 59) | 22 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Waypoint Bearing Tail (Figure 1, Index 25) | 17 |
| Waypoint Digital Range and Bearing (Figure 1, Index 2) | 14 |
| Waypoint Pointer Bearing (Figure 1, Index 15) | 16 |
| Waypoint Sequence Selected (Figure 1, Index 50) | 20 |
| Waypoint Sequenced Display (Figure 1, Index 72) | 24 |
| Waypoint Situation Symbol (Figure 1, Index 14) | 15 |
| Waypoint Time-to-go (Figure 1, Index 3) | 14 |
| Waypoint Decrement (Figure 1, Index 5) | 14 |
| Waypoint Increment (Figure 1, Index 5) | 14 |
| Waypoint Number (Figure 1, Index 5) | 14 |
| WYPT Data (Figure 1, Index 49) | 20 |
| WYPT/OAP/TGT (Figure 1, Index 4) | 14 |
| WYPTS (Figure 2, Index 10) | 30 |

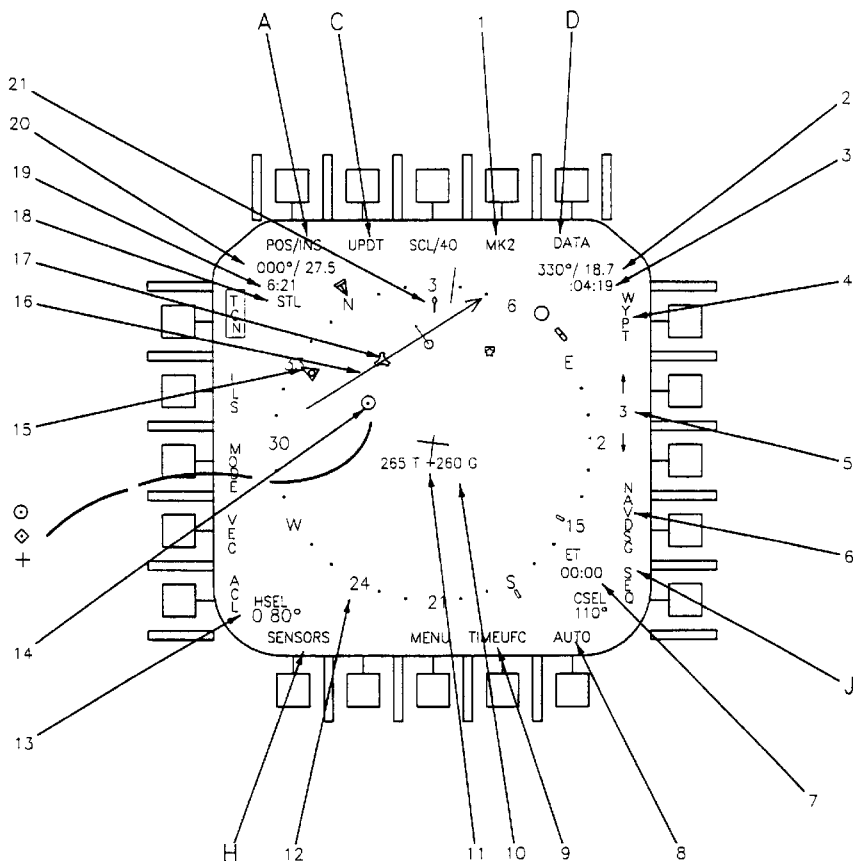
Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

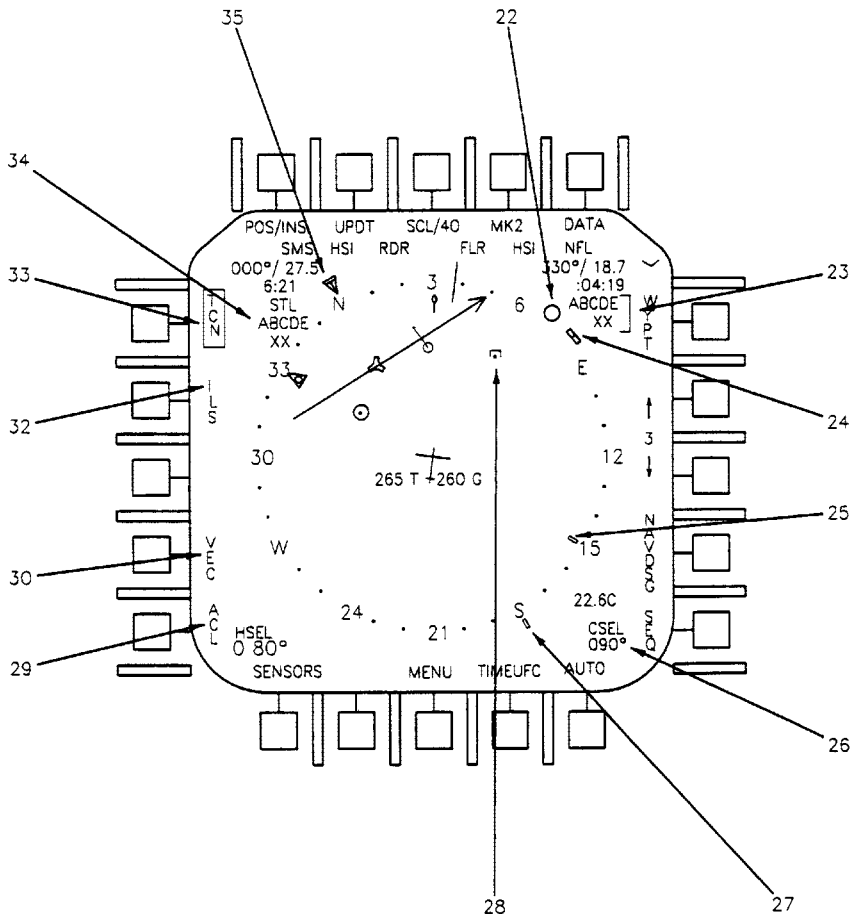
2. This work package contains illustrations and descriptions of the display elements common to HSI displays. The illustrations are not meant to represent

typical displays, but to provide general appearance and positioning of the elements which make up HSI displays. The descriptions may contain schematic references which show the development of the display elements.



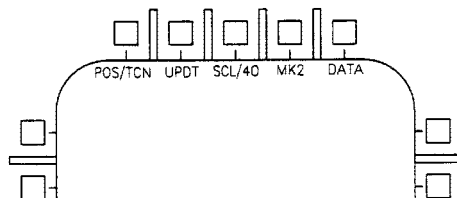
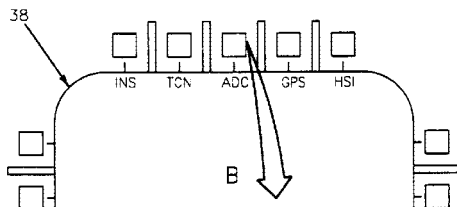
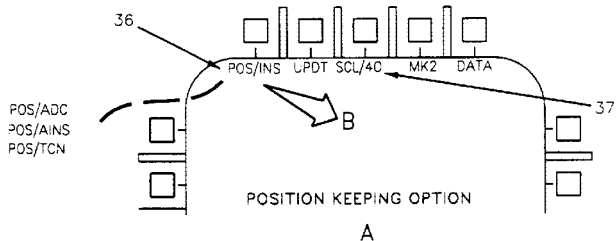
HSI-BASIC

Figure 1. HSI Symbology (Sheet 1)



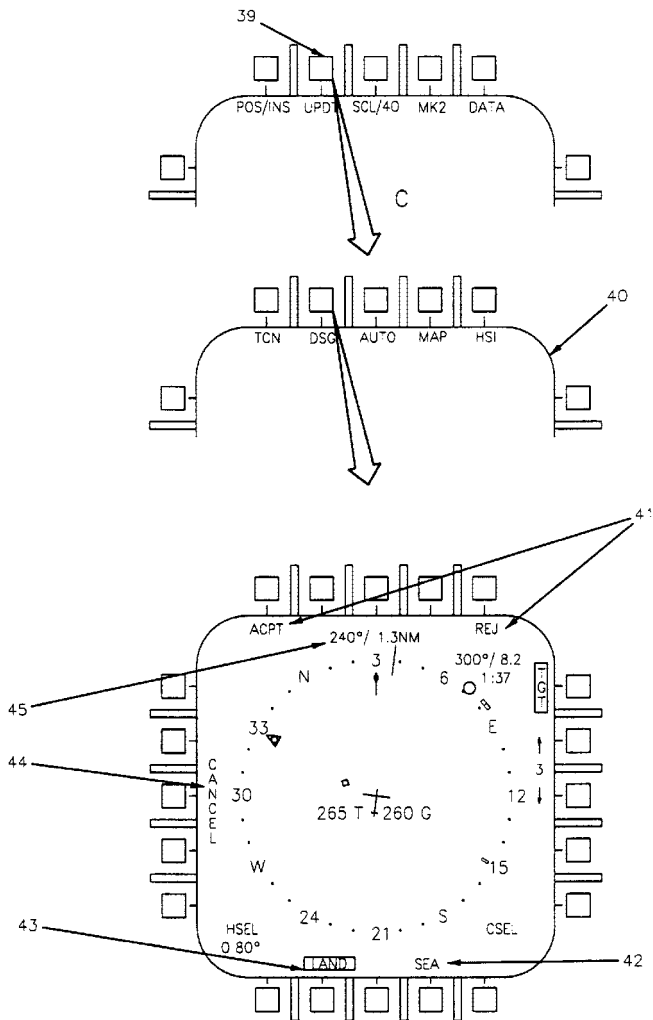
HSI-BASIC

Figure 1. HSI Symbology (Sheet 2)



POSITION KEEPING OPTION

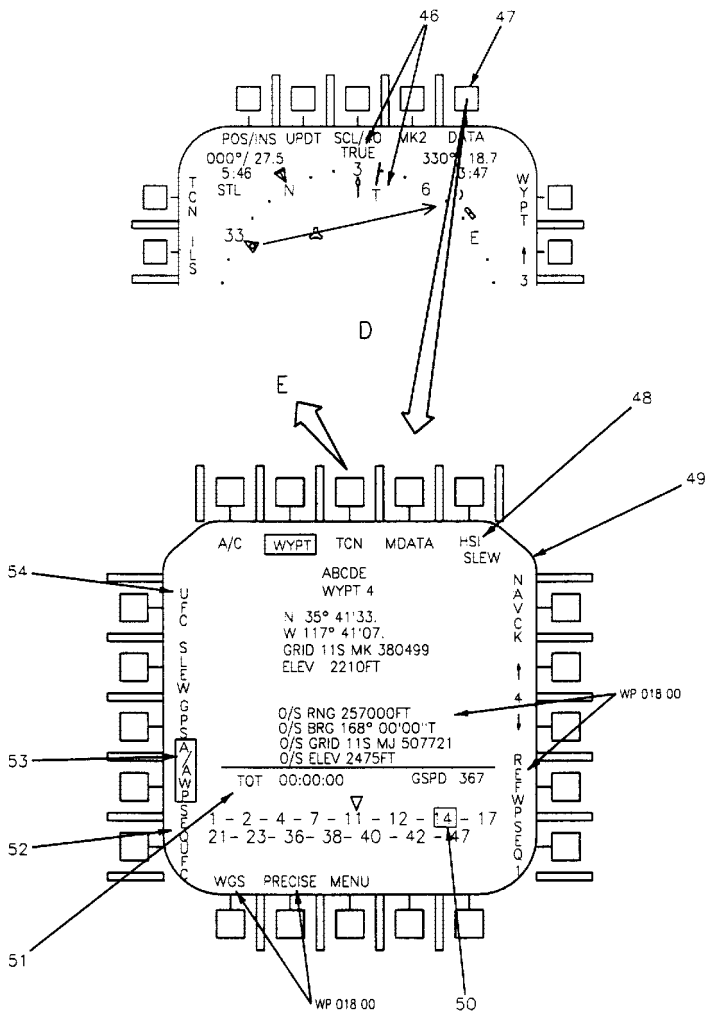
Figure 1. HSI Symbology (Sheet 3)



UPDATE OPTION

00010104

Figure 1. HSI Symbology (Sheet 4)



DATA OPTION

Figure 1. HSI Symbology (Sheet 5)

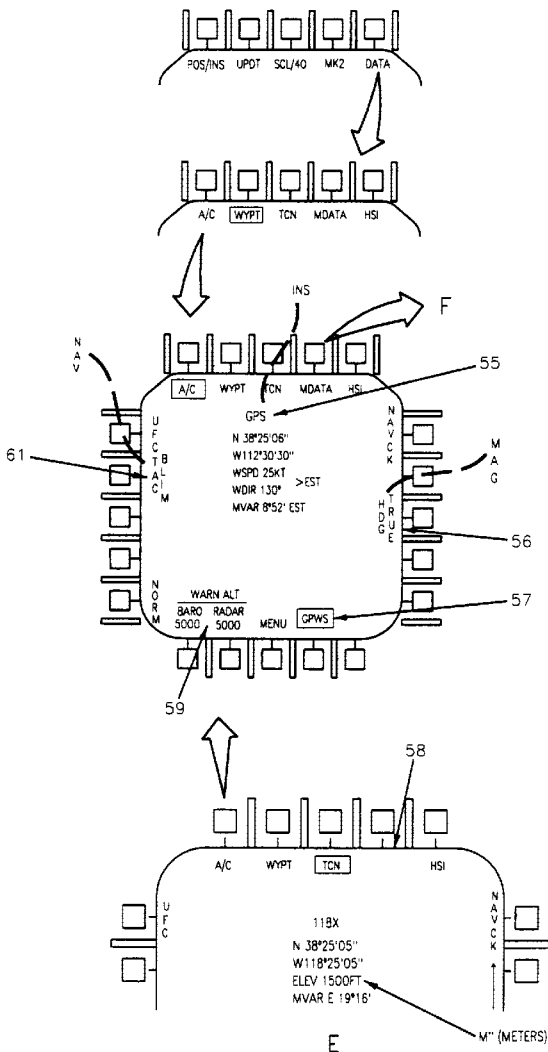


Figure 1. HSI Symbology (Sheet 6)

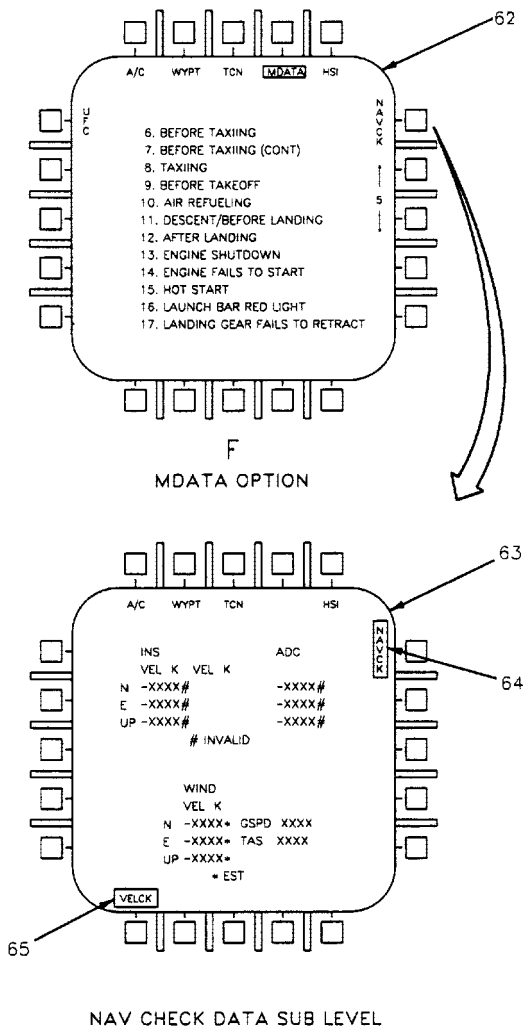
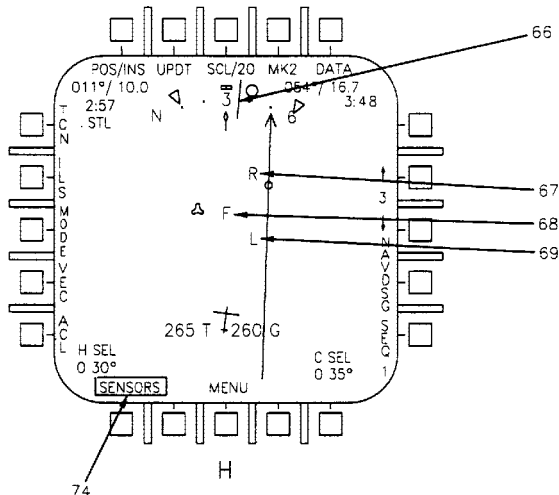
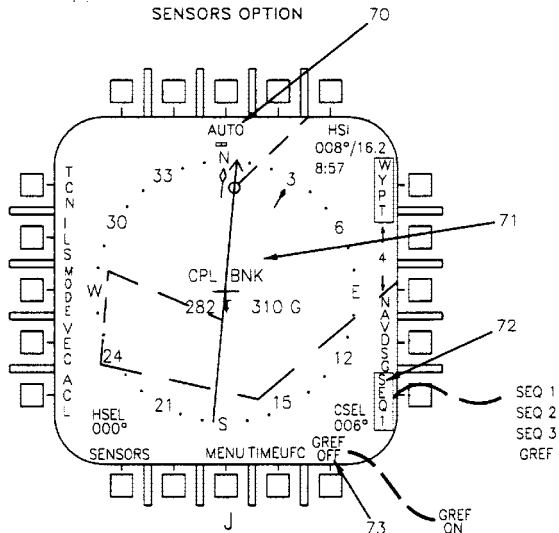


Figure 1. HSI Symbology (Sheet 7)



SENSORS OPTION



SEQUENCE OPTION

Figure 1. HSI Symbolgy (Sheet 8)

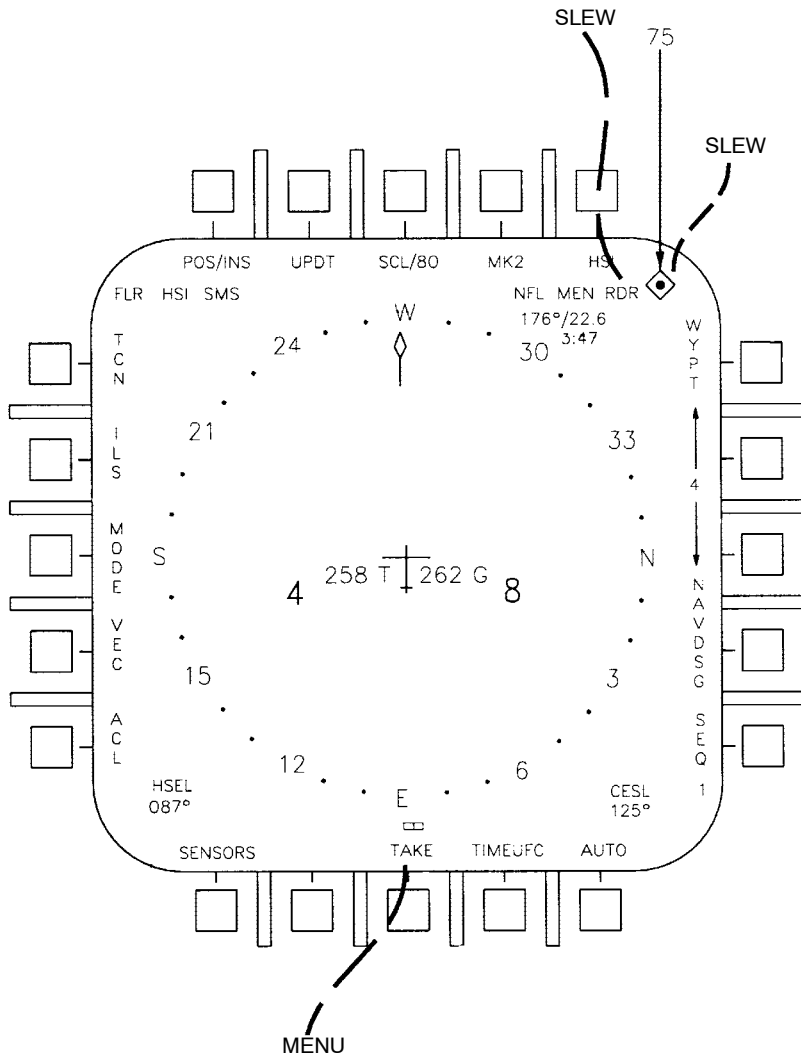


Figure 1. HSI Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------------|--|
| 1 | Mark Option | When a ground point is not designated and option is selected, the latitude and longitude of the overfly point are stored. If ground point is designated, the computed latitude and longitude of the designated OAP or target is stored. Repeated pushbutton switch depressions cycles MK1 through MK9 and back to MK1 (Bombing/Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| 2 | Waypoint Digital Range and Bearing | Displayed if valid and DATA option not selected. Indicates relative bearing and range in nautical miles to selected waypoint (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 3 | Waypoint Time-to-go | Indicates time-to-go to selected waypoint in hours, minutes, and seconds (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 4 | WYPT/OAP/ TGT | Provided to select waypoint destination steering. Boxed when selected. WYPT steering is deselected when waypoint is designated. If selected waypoint has an offset, OAP is displayed. If target is designated, TGT is displayed (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 5 | Waypoint/ TACAN Increment/ Decrement | When WYPT DATA option selected, upward pointing and down ward pointing arrows displayed to increment/decrement waypoint number or mark number by pressing adjacent pushbutton switch. Waypoints cycle from 0 thru 24 and mark number cycle from M1 through M9 and back to M9. When TCN DATA option is selected, increments/decrements TACAN table number from 0 through 9 and back to 0. Arrows removed when A/C DATA, is selected (INS Align/ BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| | Waypoint/ TACAN Number | Indicates selected waypoint/mark number when WYPT DATA option is selected or TACAN table number when TCN DATA is displayed. Displayed number is incremented/decremented by pressing up/down arrow pushbutton. Number is removed when A/C DATA, is selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500. WP012 00). |
| 6 | O/S/NAVDSG | O/S displayed when OAP is displayed. (r) is displayed when selected. Steering is provided to offset point. Navigation designation option (NAVDSG) designates aimpoint of selected WYPT/OAP. Provides navigation coordinates entered on UFC. Not displayed when target or OAP designated or if digital data computer no. 2 has failed (Auto- Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 7 | Time Display | Countdown (CD) time or elapsed time (ET) displayed when selected by way of UFC. |

Figure 1. HSI Symbology (Sheet 10)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------------|--|
| 8 | AUTO Option | <p>Displayed boxed when option is selected. Provides great circle route steering or course line steering when selected to waypoint if the below:</p> <ol style="list-style-type: none"> 1. Magnetic heading valid. 2. Aircraft present position valid. 3. Two or more waypoints stored in selected sequence. 4. Aircraft ground track valid. 5. Steering waypoint range/bearing valid. 6. Ground point not designated. 7. AUTO UPDT pushbutton not pressed. 8. TCN, ILS 9. WYPT steering pushbutton not depressed. <p>(Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00).</p> |
| 9 | TIMEUFC | When selected, the UFC is commanded to provide the time options on the UFC display (SET, ET, CD, ZTOD, and LTOD). |
| 10 | GSPD Required | Displays required groundspeed to arrive at the marked target at the TOT (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 11 | Aircraft Symbol Aircraft Speed | Aircraft symbol is displayed in a fixed position when DATA option not selected. True airspeed and ground speed are displayed if valid. Not displayed during map slewing (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 12 | Compass Rose | Displayed when DATA option not selected. Elongated radial at top of rose indicates aircraft heading. Radius of compass rose is 10, 20, 40, 80, or 160 nm (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 13 | HSEL | Indicates the digital command heading. |
| 14 | Waypoint Situation Symbol | Symbol indicates relative location of selected waypoint. If the selected waypoint is an OAP, the target situation symbol is displayed. If an OAP is designated, a diamond is displayed instead of the circle shown. Displayed when OAP or waypoint location is within selected map range (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| | Target Situation Symbol | Displayed until the target is designated. Diamond is displayed when target is designated with no OAP. The target symbol can be displayed outside the compass rose except when not designated. When designated, diamond is limited to the compass edge. Not displayed when OAP steering is not selected and the OAP or associated offset has not been designated (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |

Figure 1. HSI Symbology (Sheet 11)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------------|---|
| 15 | Waypoint Pointer Bearing | Indicates bearing of selected waypoint (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| 16 | Course Line | Displayed when course is selected with course select switch. Displayed through waypoint (not OAP) symbol when WYPT steering is selected or through TACAN station symbol when TCN steering is selected. When coupled steering is selected, the autopilot intercepts and holds selected course or follows the course line if it is moved while coupled. Course line removed when map is slewed (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 17 | TACAN Station Symbol | Indicates relative position of selected TACAN station when TACAN range and bearing are valid. Displayed when TACAN station location is within selected map range (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 18 | TACAN Station Ident | Station identification from selected TACAN station is displayed if valid (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 19 | TACAN Time-To-Go | Computed time remaining until arrival at selected TACAN station in minutes and seconds. Not displayed if invalid (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 20 | TACAN Digital Range and Bearing | Range to selected TACAN station in NM is displayed if aircraft TACAN range is valid. Bearing to selected TACAN station is displayed if valid (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 21 | Ground Track Pointer (Diamond) | Displayed to indicate aircraft ground track when DATA option not selected and magnetic heading is valid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 22 | ADF Bearing | Displayed if magnetic heading and ADF are valid and DATA option not selected (ADF System Functional Schematic, A1-F18AC-600-500, WP011 00). |
| 23 | Fuel at Waypoint/ Distance to Descent | Displays calculated fuel remaining when waypoint is reached and distance from the waypoint to begin a standard descent. Fuel value is flashed when fuel is less than 2000 lb and fuel value is blanked if mach is greater than .9 mach. If fuel value is less than zero (0), a zero (0) is displayed. Not displayed if FPAS parameters are invalid. |
| 24 | Command Heading Pointer | Displayed if DATA option not selected and magnetic heading is valid. Positioned as function of HDG set switch (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |

Figure 1. HSI Symbology (Sheet 12)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 25 | Waypoint Bearing Tail | Displayed opposite waypoint bearing pointer on the compass rose. Provides fly-from waypoint bearing data (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 26 | CSEL | Course select displayed as function of CRS set switch. The exact digital value of the course selected is displayed (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 27 | TACAN Bearing Tail | Displayed opposite TACAN bearing pointer on the compass rose. Provides fly-from TACAN bearing data (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 28 | A/A Radar Target | Displayed when aircraft is in A/A master mode, and radar is in STT or TWS mode with a L&S target, A/A master mode, and MSI L&S target exists. Target is displayed with HAFU with target type/rank symbol. Target is not displayed when outside the selected range of the HSI display (Bombing Navigation Functional Schematic, A1-F18AC-730-500, WP019 00). |
| 29 | ACL Option | <p>Displayed in nav mode only. Selection prepares aircraft for automatic carrier landing by the below:</p> <ol style="list-style-type: none"> 1. Data link system turned on (if off), power-up BITed, and UTM tested. 2. ILS is turned on (if off). 3. Radar beacon is turned on (if off) and BITed. 4. ACL and ILS options boxed. 5. Data link and ILS steering information displayed on HUD. 6. Situational awareness (SA) (WP021 00) display is provided on digital display indicator <p>(Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00).</p> |
| 30 | VEC Option | <p>Provides option of selecting vector mode. Option boxed when selected. Data link system is activated, power-up BIT done, and UTM test done. SA mode displayed on digital display indicator</p> <p>(Data Link System Vector Mode Functional Schematic, A1-F18AC-630-510/(C), WP012 00).</p> |
| 31 | Deleted | |
| 32 | ILS Option | <p>Provides option of selecting instrument landing system mode. Displayed boxed when selected with horizontal and vertical glideslope steering data displayed on HUD. Automatically selected when ACL is pressed</p> <p>(Instrument Landing System Functional Schematic, A1-F18AC-630-500, WP004 00).</p> |

Figure 1. HSI Symbology (Sheet 13)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 33 | TCN Option | Provides destination steering to selected TACAN station. Option boxed when selected. TCN steering is deselected when a point is designated and if TCN position keeping or TCN update mode is selected (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 34 | Fuel at Tacan Station/Distance to Descent | Displays calculated fuel remaining when the tacan station is reached and the distance from the tacan station to begin a standard descent. Not displayed if FPAS parameters are invalid, Fuel value is flashed when fuel is less than 2000 lb and fuel value is blanked if mach is greater than .9 mach. |
| 35 | TACAN Pointer | Indicates bearing of selected TACAN station when data is valid. (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 36 | POS/XXX | POS/INS, POS/TCN, POS/AINS, POS /GPS or POS/ADC is displayed based on selected position keeping data source. Pushbutton switch action causes sublevel display (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 37 | SCL | Provides selection of operating scale. When map is track up or north up, selecting 5, 10, 20, or 40 selects digital map display. When map is decentered, selecting 10, 20, 40, or 80 selects digital map (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 38 | Position Option Select | Displayed when POS/XXX option pushbutton switch is pressed and released. INS, TCN, or ADC options provided for selection of position keeping source. Display returns to basic format with POS/INS, POS/TCN, or POS/ADC displayed indicating the newly selected option. POS/INS is automatically selected when INS data valid and weight off wheels (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 39 | UPDT | Provided to select update sublevel display. Position updating is used to update the INS position or to update position while in air data dead reckoning (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |

Figure 1. HSI Symbology (Sheet 14)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 40 | Update Options | <p>Displays sublevel display with DSG (designation), TCN, AUTO, MAP (projected map), VEL (velocity), and CANCEL as options for position update source when POS/XXX option selected. AUTO pushbutton switch selects an automatic update and designation.</p> <p>AUTO is boxed and TCN, DSG, MAP, and VEL options are removed from the display. TCN pushbutton switch selects the selected TACAN station position to determine the aircraft position. VEL push button switch selects the current onboard velocities for A/G weapon delivery computations.</p> <p>DSG pushbutton switch provides for the sensor designation of the selected surface waypoint with the HUD TDC diamond or by an over fly designation. When a designation is made by the DSG option, pressing the MAP pushbutton switch automatically assigns the TDC to the HSI display for map dewing.</p> <p>SLEW cue is displayed in the upper right of the display. The feature selected appears under the designation symbol. If no designation is made, the overfly feature is under the aircraft symbol HUD, REJ and ACPT option pushbutton switches allow rejection or acceptance of the update. Rejection is also done by pressing the HSI option push button. Selecting REJ, ACPT, or HSI option returns the normal HSI display.</p> <p>The CANCEL option provides a means to reject a previously accepted update. When CANCEL is selected, the INS does a position up date using the cancelled position update and the previously accepted update. The CANCEL option should not be selected for 10 seconds after RCPT option is selected to allow for processing time. The CANCEL option is removed after processing is completed (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00).</p> |
| 41 | ACPT/REJ | <p>Accept or reject is selected for position/velocity update and display returns to normal HSI display (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00).</p> |
| 42 | SEA | <p>Displayed when velocity update selected. Radar look down angle is adjusted for optimum sea return (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00).</p> |
| 43 | LAND | <p>Displayed when velocity update selected. Radar look down angle is adjusted for optimum land return (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00).</p> |
| 44 | CANCEL | <p>Displayed when an position/velocity update is accepted. INS updates position using cancelled position with previously accepted update position. Option should not be selected for 10 seconds after accepting an update (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00).</p> |

Figure 1. HSI Symbology (Sheet 15)

| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------|--|
| 45 | Position Error | Displays position error readout in degrees and nautical miles or knots for VEL updates (TACAN System Functional Schematic, A1-F18AC-600-500, WP016 00). |
| 46 | True Heading Pointer and Cue | Displayed when true heading reference is active (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 47 | DATA Option | Provided for selection of data sublevel display. When selected, WYPT is displayed boxed. Options of A/C (aircraft), TCN, INSCK (INS check), HSI, UFC, WARN ALT for BARD and RADAR altitude are also displayed (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 48 | HSI Option | Displayed to provide a means to return to the normal HSI display (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 49 | WYPT Data | Waypoint/OAP/offset data automatically displayed when DATA option selected and WYPT is displayed boxed. Upward and downward pointing arrows are displayed to increment or decrement waypoint/OAP numbers. Waypoint/OAP is entered/updated by selecting UFC option to enable the electronic equipment control. When new position data for an OAP are entered, previously stored O/S range and bearing are set to zero and O/S elevation is set the same as the new waypoint/OAP elevation unless changed by UFC O/S data entry (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 50 | Waypoint Sequence Selected | The current target is indicated by a box around the waypoint number (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 51 | TOT | Displayed when HSI/DATA/WYPT options are selected on the HSI display Indicates the necessary ground speed (GSPD) to arrive at a defined target waypoint at a pre-selected time. Target waypoint number and the pre-selected time for arrival must be entered. |
| | GSPD | Ground speed for the final leg to the target can be entered. Entry of all data is by the electronic equipment control. The currently selected waypoint sequence is displayed below the TOT data line (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |

Figure 1. HSI Symbology (Sheet 16)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 52 | SEQUFC Option | Provides means to prepare electronic equipment control for TOT data entry. When option is selected, electronic equipment control options displayed are GSPD, TGT, TOT, INS (insert), and DEL (delete) (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 53 | A/A WP | Provides means to select a waypoint. Displayed boxed when option selected. Upward and downward pointing arrows on the display are used to increment or decrement waypoint selections. The waypoint number is displayed between the arrows. When A/A WP option pushbutton switch is pressed, the number is displayed adjacent to the option label. The pointer indicates magnetic or true north depending upon the selection of HDG mag/true pushbutton switch on the HSI A/C DATA sublevel display. |
| 54 | UFC | <p>UFC selection on any data sublevel (A/C, WYPT, TCN display enables the electronic equipment control to display data entry options and accept data entry.</p> <p>When DATA is selected on the HI mode switch, the UFC legend is displayed. Selection of UFC enables the electronic equipment control to display the DATA option and accept data frame number entry (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00)</p> |
| 55 | A/C Data | <p>The INS or GPS present position of the aircraft, the windspeed and direction, and the computed magnetic variation are displayed when A/C data is selected (A/C boxed). If position keeping is by ADC, EST (estimated) is displayed next to wind data. If the MAD function fails, EST is displayed next to MVAR data. A/C data may be entered/updated by selecting UFC to enable the electronic equipment control to display data options and accept data entry.</p> <p>Selecting HSI returns the basic display.</p> <p>Selecting WYPT, TCN selects the waypoint, tacan, or mcp data sublevel.</p> <p>Selecting INSCK selects INS check data to be displayed (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00).</p> |
| 56 | Heading selection HDG MAG/ HDG TRUE | Displayed when HSI option is A/C Data. Alternate action pushbutton selects HDG TRUE/HDG MAG when pushbutton is pressed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |

Figure 1. HSI Symbology (Sheet 17)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 57 | GPWS | GPWS option selection (boxed) enables the ground proximity warning system and the alerts and displays associated with warning against controlled flight into terrain. Option is defaulted to ON at power up. GPWS is intended as a backup to safe operation and does not inhibit aircraft operation. GPWS warnings include excessive bank angle, excessive sink rate on take off or landing, floor altitude violation, gear up landing, and altitude loss during recovery. |
| 58 | TACAN Data | <p>Tacan data is displayed when TCN data is selected (TCN boxed). Up to 10 Tacan sets of Tacan data are stored. The Tacan table number is changed as described in Waypoint/Tacan Increment/Decrement. Tacan table data may be entered/updated by selecting UFC to enable the electronic equipment control to display data options and accept data entry. ELEV may be entered and displayed using feet (FT) or meters (M).</p> <p>Selecting INSCK selects INSCK data to be displayed.</p> <p>Selecting HSI returns the basic display.</p> <p>Selecting WYPT, A/C, selects the waypoint, aircraft, or map data sublevel display (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00).</p> |
| 59 | WARN ALT | <p>When WARN ALT BARD pushbutton is pressed, the UFC is enabled allowing for BARD altitude entry up to a maximum of 25,000 feet. When the aircraft passes through the BARD setting, the “Altitude, Altitude” voice alert is enabled.</p> <p>When WARN ALT RADAR pushbutton is pressed, the UFC is enabled allowing for RADAR altitude entry up to a maximum of 5000 feet. Passing through RADAR setting, the “Altitude, Altitude” voice alert is enabled (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00)</p> |
| 60 | Deleted | |
| 61 | TAC BLIM | TAC and NAV bank angle limit are selected by way of alternate action pushbutton. The NAV bank limit selection will limit aircraft bank during coupled maneuvers to a fixed 30 degree bank. Selection of the TAC bank limit will result in a bank angle command limit proportional to calibrated airspeed; the maximum TAC bank angle command will be between 30 and 60 degrees. If radar altitude hold is engaged along with coupled steering while TAC bank steering is selected, maximum bank is limited to 45 degrees to assure the radar altimeter maintains track. This option is defaulter to TAC BLIM on power-up with weight on wheels. |
| 62 | DATA | Data selection calls up the data display, with the data options of aircraft (A/C), waypoint (WYPT) and TACAN (TCN). HIS (index 48) and UFC (index 54) options are also displayed. WYPT is automatically the selected data option when the DATA pushbutton is pressed (Navigation Velocity and Position Keeping Functional Schematic, A1-F18-AC-730-500, WP 018 00). |

Figure 1. HSI Symbology (Sheet 18)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 63 | INSCK Data | Displays INS data to be checked. Option boxed when selected. INS, ADC, and wind velocity data is displayed with best available groundspeed (GSPD) if valid and true airspeed (TAS) if not zero. INS and ADC velocities are always displayed. When data is not valid a # symbol is displayed at the value and # INVALID is displayed. When winds are estimated an asterisk (*) is displayed at the value and EST with an asterisk (*) is displayed (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 64 | NAVCK | Selection of the NAVCK option provides a format on the HSI with the following information: North, East and Up components of aircraft velocity from the INS and GPS, North and East components of ADC air mass velocity; best available MC true airspeed. All velocities on this format are displayed in knots. The INS, GPS and ADC velocities are always displayed on the NAV Check format. If data is invalid, then an # follows the corresponding invalid data and #INVALID; legend is displayed on the NAV Check format. If the wind velocity is estimated, then an * is placed after each wind velocity component and *EST is shown on the NAVCK format. Best available MC value for GSPD will be displayed if valid. Best available MC value for TAS is displayed if it is not zero. |
| 65 | VEL CK Option | Provides selection of INS/Radar velocities crosscheck when selected (boxed). INS and radar (PVU) velocities are compared when PVU has been active for 10 seconds. If sufficient error exists in horizontal or vertical velocities the NAV HVEL or NAV VVEL caution is displayed as appropriate. |
| 66 | Magnetic Heading Pointer (Lubber Line) | Displayed to indicate magnetic heading of the aircraft when valid and placed in direct line with the aircraft symbol superimposed on the compass rose (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00) |
| 67 | R | Displayed when radar is operational, throttle designator control (TDC) is assigned to radar, and SENSORS pushbutton switch pressed. Indicates center point of radar search area. Not displayed when aircraft magnetic heading is invalid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00) |
| 68 | F | Displayed when forward looking infrared system (FLIR) is operational, TDC is assigned to FLIR, and SENSORS pushbutton switch is pressed. Indicates center point of FLIR field of view. Not displayed when aircraft magnetic heading is invalid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00) |
| 69 | L | Displayed when laser spot tracker system (LDT) is operational and SENSORS pushbutton switch is pressed. Indicates center point of LDT scan pattern. Not displayed when aircraft magnetic heading is invalid (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500. WP011 00) |

Figure 1. HSI Symbology (Sheet 19)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 70 | AUTO Update Select | When selected, allows an overfly designation on the selected OAP or waypoint. When performed on the OAP, the aircraft present position is automatically updated, the OAP is designated and the stored offset data is added to complete the target designation. When performed on a waypoint, the aircraft present position is automatically updated and the next navigation destination number is selected and designated to become the designated OAP or target (Navigation Velocity and Position Keeping Functional Schematic, A1-F18AC-730-500, WP018 00). |
| 71 | CPL Status | Displays coupled steering mode when autopilot coupled steering is selected. Steering modes are waypoint (WYPT), tacan (TCN), and sequence (SEQ()) |
| 72 | SEQ1, SEQ2, SEQ3 (Waypoint Sequenced Display) | When SEQ pushbutton is pressed on HSI basic display, any one of three stored sequences can be selected. When a selected sequence is selected and boxed, dashed lines are displayed connecting the way points in the selected sequence (Auto-Sequential Steering Displays Functional Schematic, A1-F18AC-730-500, WP022 00). |
| 73 | GREF ON/OFF Option | Provides the option to enable/disable the display of geographic reference points |
| 74 | SENSORS | Selection of SENSORS pushbutton switch provides sensor footprint display. Display is dependent on operating status of sensors (radar, FLIR, LST) and on TDC assignment. All indications (R, F, L) displayed when TDC assigned to HSI. SENSORS pushbutton leg end not displayed when an aimpoint is designated, A/A master mode selected, or when sublevel options are displayed (Horizontal Indicator IP-1350/A Basic Displays Schematic, A1-F18AC-745-500, WP011 00). |
| 75 | TDC Diamond | Diamond displayed when throttle designator control (TDC) assigned to the Horizontal Indicator (HI). SLEW displayed when TDC is assigned to HI for map dewing by pressing SLEW button (Map Slew and Update Control Functional Schematic, A1-F18AC-745-500, WP012 00). |

Figure 1. HSI Symbology (Sheet 20)

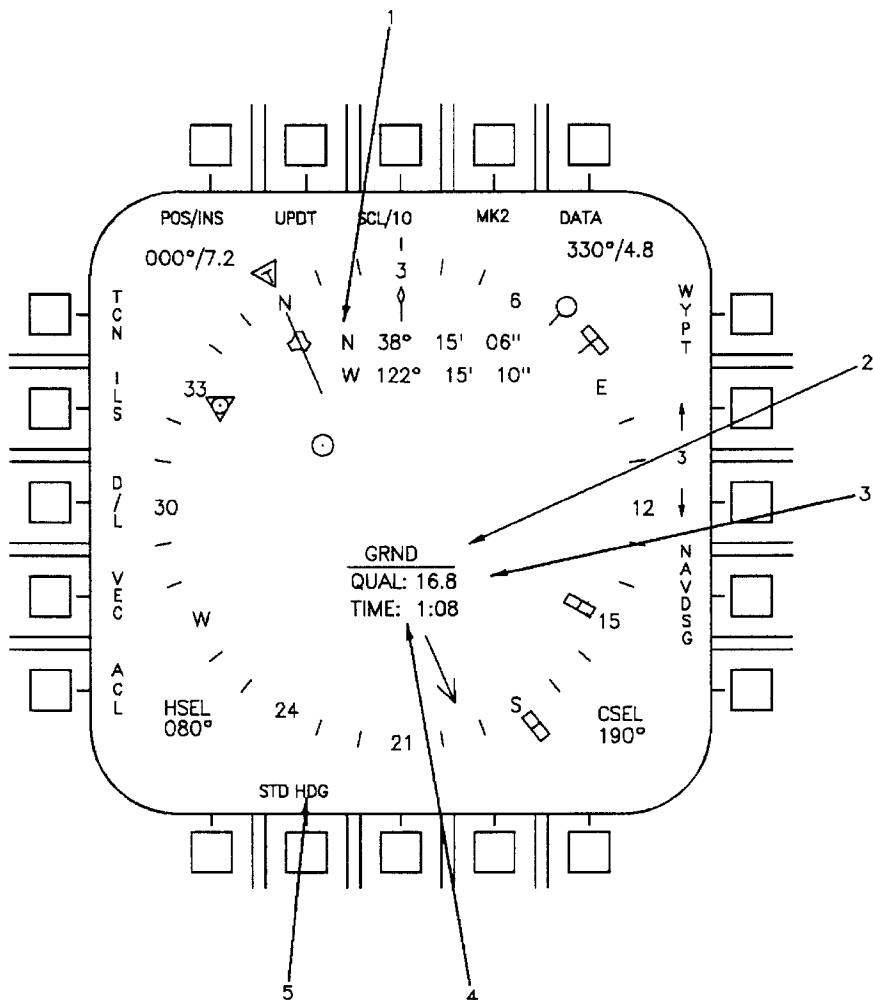


Figure 2. INS Alignment Symbology (Sheet 1)

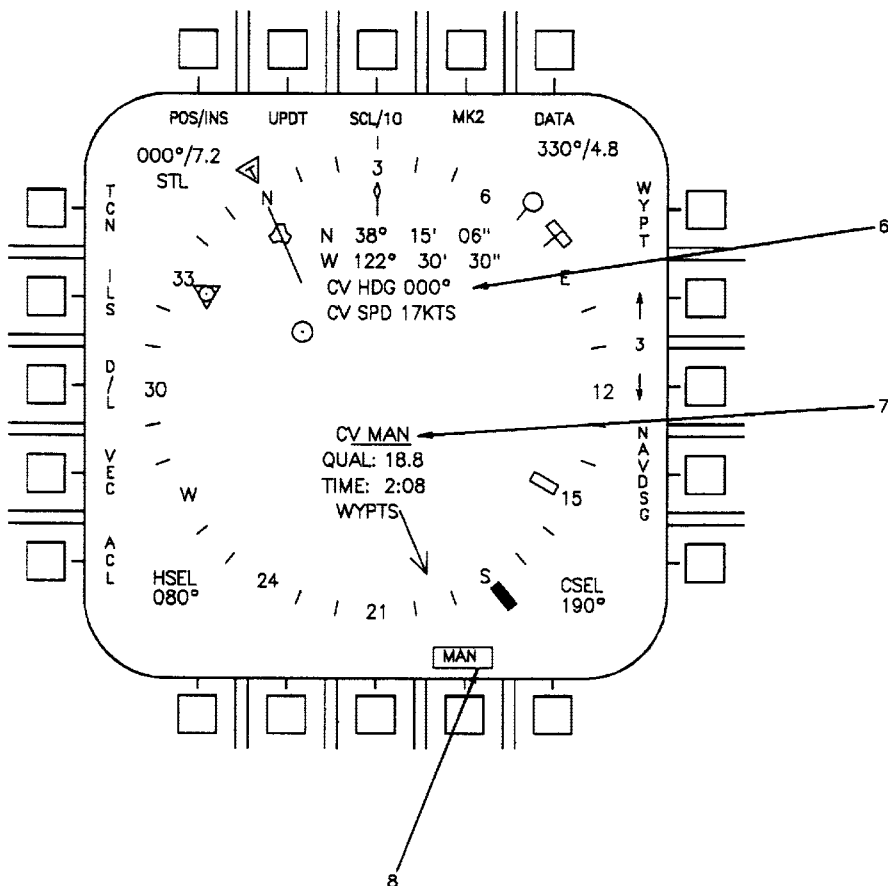


Figure 2. INS Alignment Symbology (Sheet 2)

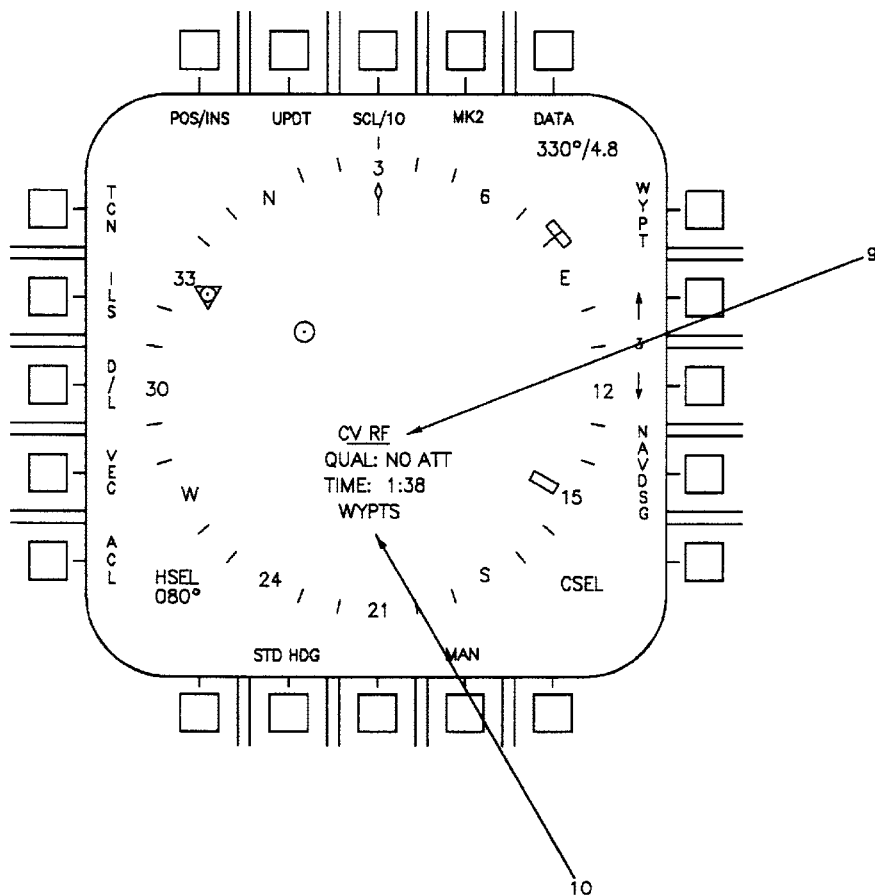


Figure 2. INS Alignment Symbology (Sheet 3)

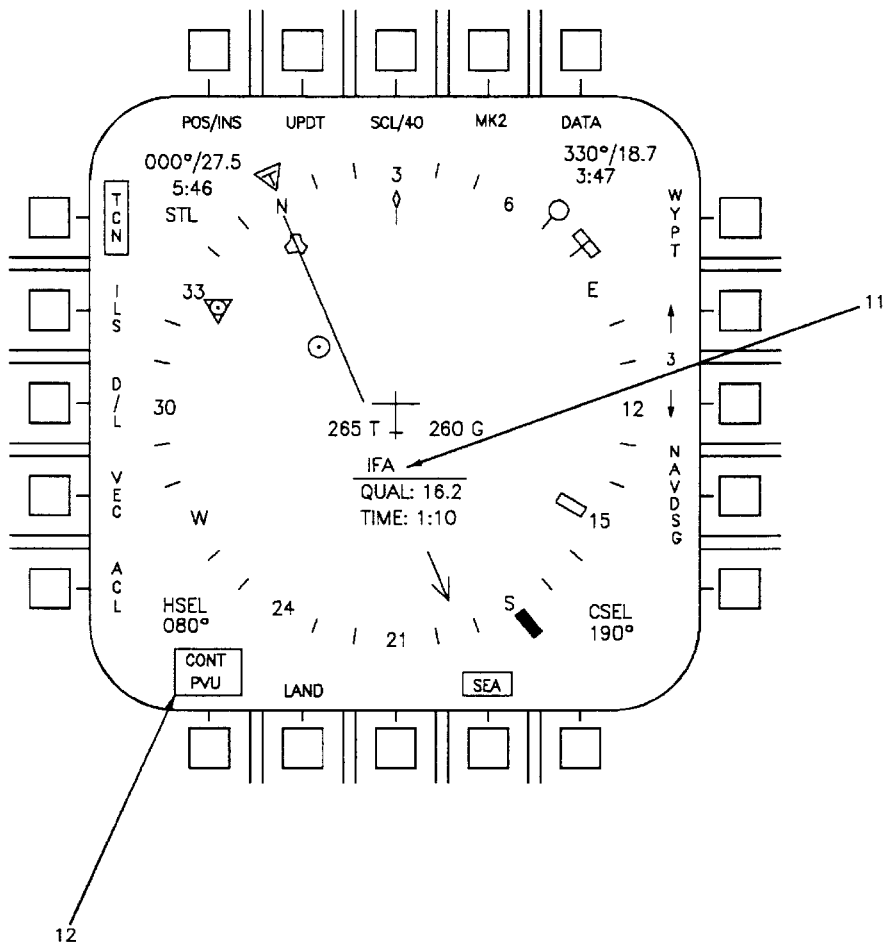


Figure 2. INS Alignment Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-------------------------------------|---|
| 1 | Align Coordinates/ Present Position | Indicates present position of aircraft. Displayed in GRND align mode and CV MAN align mode only. Displayed coordinates are removed when align mode is deselected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 2 | GRND | Indicates that INS is in the ground align mode (INS Align/BIT Displays Functional Schematic. A1-F18AC-730-500. WP012 00). |
| 3 | NO ATT/ QUAL | Indicates the quality of the alignment numerically during the alignment process. For the first 1 to 2 minutes of alignment, NO ATT legend indicates INS provided attitude is not reliable. NO ATT replaced by QUAL number when displayed, indicates the INS begins gyro-compassing. Number decreases proportionally and is the estimated accuracy of INS present position. When INS has reached an acceptable level, "OK" is displayed next to the QUAL number (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 4 | TIME | Indicates align time in minutes and seconds. When the parking brake is released, the INS enters align hold and time is stopped. Time flashed when in inflight align and radar not operating in PVU, when INS in align hold, or when EMCON selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 5 | STD HDG | <p>Stored heading option provides accurate heading before gyro-compassing phase of alignment, reducing the time required to complete alignment. Stored heading option available when:</p> <ol style="list-style-type: none"> 1. Parking brake set. 2. Completion of a previous alignment and INS set to OFF, without going to NAV. 3. Weight on wheels. Legend boxed when selected. Option removed when selection would no longer reduce align time <p>(INS Align/BIT Display Functional Schematic, A1-F18AC-730-500, WP012 00).</p> |
| 6 | CV HDG/ CV SPD | Indicates carrier heading and speed entered via UFC for CV MAN alignment mode (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500. WP012 00). |
| 7 | CV MAN | Indicates CV manual alignment mode selected. Flashed when SINS data not valid (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 8 | MAN Option | Displayed if CV alignment is selected. Pushbutton switch selects CV MAN alignment. Legend boxed when selected (INS Align/BIT Displays Functional Schematic. A1-F18AC-730-500, WP012 00). |

Figure 2. INS Alignment Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 9 | CV RF/CBL | CV RF displayed if CV alignment is selected, MAN option not selected, and SINS umbilical cable not connected CV CBL displayed if CV alignment is selected, MAN option not selected, and SINS umbilical cable connected. CV RF and CV CBL flashed when SINS data not valid (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00 and Data Link System Alignment and Waypoint Mode Functional Schematic, A1-F18AC-630-110/(C), WP011 00). |
| 10 | WYPTS/ NO WYPTS | For CV CBL or CV RF alignment, indicates that all 10 waypoints have been received. NO WYPTS is displayed when waypoints not received and data link align mode is selected (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00 and Data Link System Alignment and Waypoint Mode Functional Schematic, A1-F18AC-630-110/(C), WP011 00). |
| 11 | IFA | Indicates inflight alignment mode selected. IFA commands radar PVU mode when IFA selected and for 10 seconds of each minute after IFA selection. If radar not available, time in align is flashed (INS Align/BIT Displays Functional Schematic, A1-F18AC-730-500, WP012 00). |
| 12 | CONT PVU | CONT PVU is selected when radar is on and IFA selected (option is boxed). CONT PVU option is not displayed if radar is off. When pressed and released, the option becomes not boxed, the digital data computer commands the radar to return to its last selected mode and PVU mode is selected for 10 seconds of each minute. When pressed and released again, the option is boxed, and causes digital data computer to command the radar to return to a continuous PVU mode (INS Align/Bit Displays Schematic, A1-F18AC-730-500, WP012 00). |

Figure 2. INS Alignment Symbolology (Sheet 6)

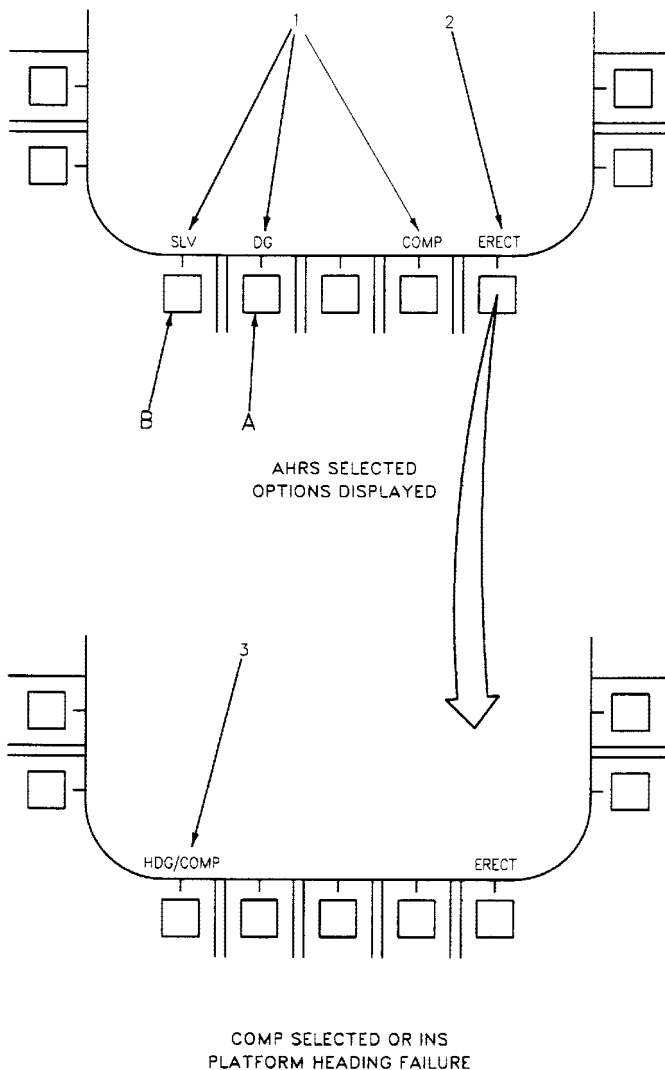
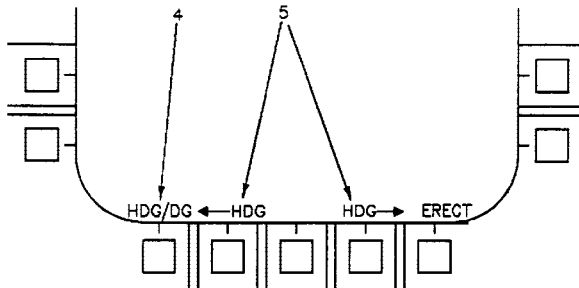
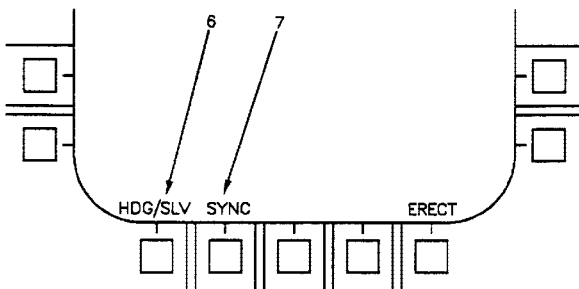


Figure 3. Backup Navigation Symbology (Sheet 1)



DG SELECTED OR INS REVERTED
TO AHRS, MAD NOT VALID

A



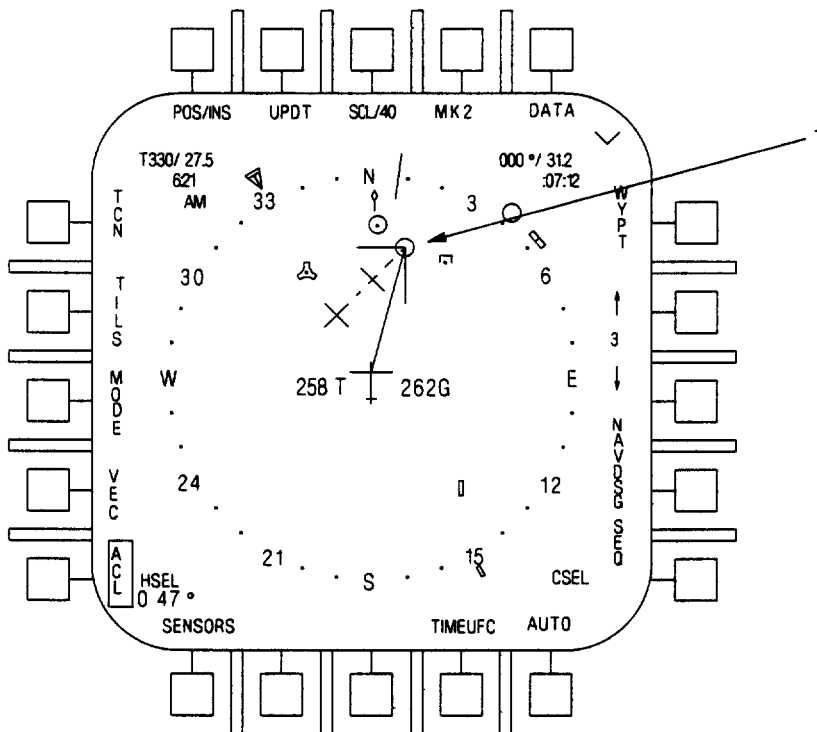
SLV SELECTED OR INS REVERTED
TO AHRS, MAD VALID

B

Figure 3. Backup Navigation Symbolology (Sheet 2)

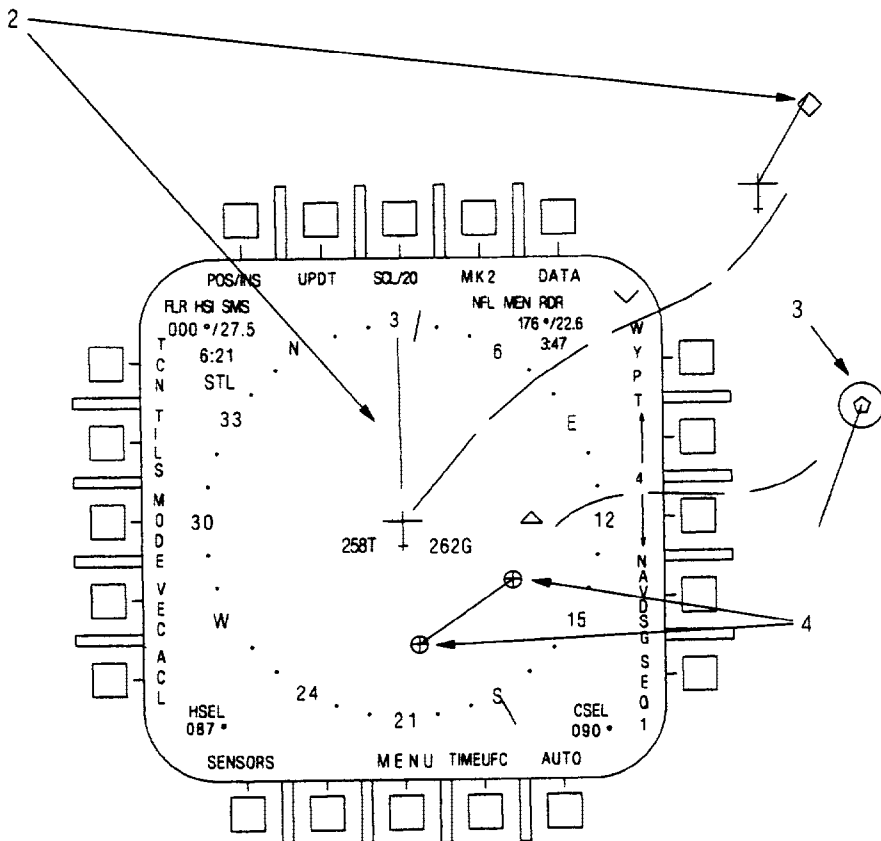
| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 1 | SLV, DG, COMP | SLV, DG and COMP options displayed when ADC position keeping is selected by the digital data computer with an INS failure. Pressing SLV, DG, or COMP pushbutton switch causes display to change as shown. If mode is available. If mode is not available, next best mode is selected by the digital data computer (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 2 | ERECT | Displayed for all backup navigation modes. Pressing ERECT pushbutton switch provides fast leveling of INS (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 3 | HDG/COMP | In the compass (COMP) mode, the digital data computer uses the MAD out put as the source of magnetic heading and the last known or pilot entered value of magnetic variation to computer true heading. Pressing the HDG/COMP pushbutton switch causes heading options to be displayed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 4 | HDG/DG | Pressing the HDG/DG pushbutton switch causes heading options to be displayed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 5 | Heading Slew | In the directional gyro (DG) mode, the aircraft heading is corrected by pressing and holding the heading slew pushbutton switches (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 6 | HDG/SLV | Pressing the HDG/SLV pushbutton switch causes heading options to be displayed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 7 | SYNC | SYNC option slaves the magnetic heading from the MAD to the INS/AHRS when pressed (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |

Figure 3. Backup Navigation Symbology (Sheet 3)



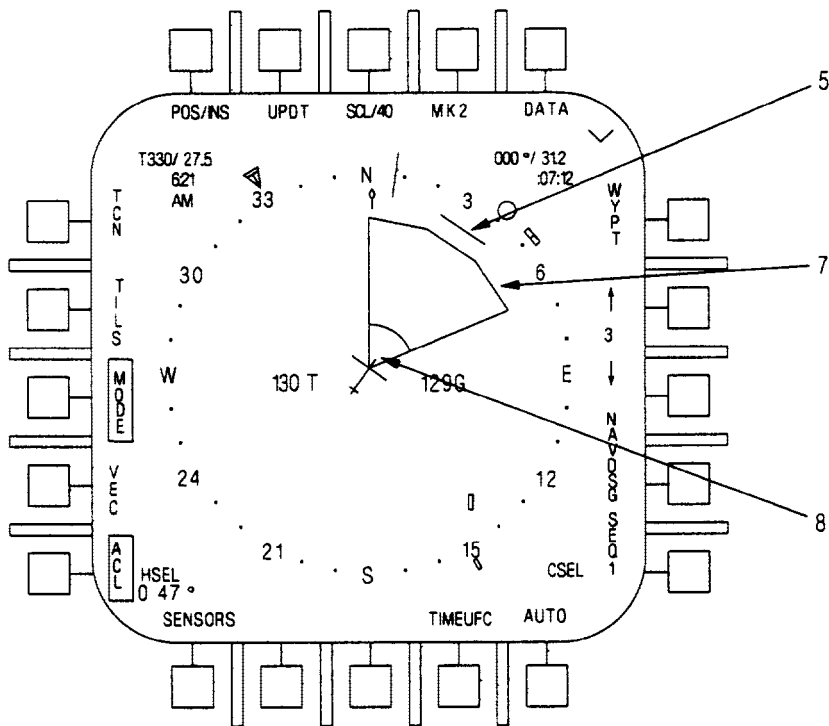
HARPOON SYMBOLOGY

Figure 4. HIS Weapon Symbology (Sheet 1)



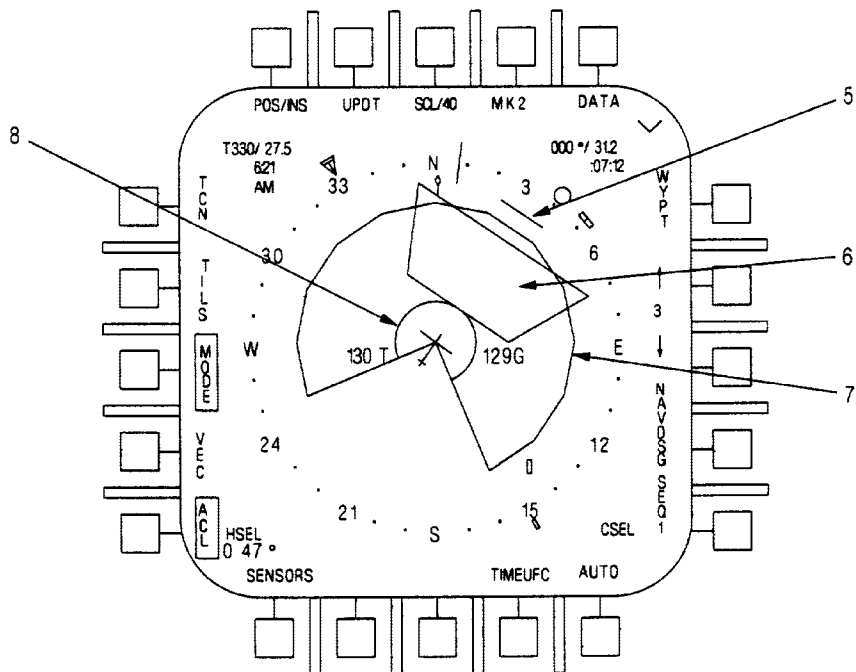
SLAM SYMBOLOGY

Figure 4. HIS Weapon Symbology (Sheet 2)



HARM TOO/EOM SYMBOLOGY

Figure 4. HIS Weapon Symbology (Sheet 3)



HARM PB/EOM SYMBOLOGY

Figure 4. HIS Weapon Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------|--|
| 1 | Harpoon Flightpath | Displayed when Harpoon is the selected weapon in NAV or A/G master mode. The missile flightpath is displayed from the aircraft to the search area or the selected turnpoint. The beginning of the missile search area is indicated by a line drawn across the missile flightpath; missile destruct distance is indicated by a cross on the flightpath line. Missile flightpath flashes when the bearing approaches the off-axis limit and segments when off-axis is exceeded, turn point angle is too large, or turnpoint is behind the aircraft. When turn angle is too large, an angular symbol is displayed at the turnpoint to highlight the turn angle limits. Missile flightpath is not displayed when the difference between search and destruct range is too small (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 2 | Boresight TOO Launch Segment | Displays a point-to-infinity line on the aircraft boresight axis when no designation exists and the mission is target of opportunity. Indicates the missile flightpath after launch (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| | Off Axis Launch Segment | Displays a point to point line when a designation exists and the mission is target of opportunity. Indicates the missile flightpath after launch and is continually updated by aircraft position and designation position (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 3 | Launch Point Symbol | A pentagon symbol is displayed to indicate the missile launch point when aircraft mode is A/G, SLAM DLMODE is SEL, and the mission is PP(x) |
| | In Range Circle | A circle is displayed with the launch point at the center to indicate SLAM range when map scale is 80 nm or less. A bearing line to the launch point is displayed to indicate the line to which an undesignated flight director steers the aircraft |
| | SLAM Target | A triangle symbol is displayed to indicates the SLAM target position when a data link pod is aboard. SLAM DLMODE is L(x) and mission is PP(x) (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 03). |
| 4 | Control Point Segment | A circle and cross symbol is displayed to indicate the position of control points using control point location data stored in the SLAM overlay when the mission is PP(x). A control segment line may be created by the SLAM overlay between control points or manually through the SLAM target when the mission is PP(x) or at launch (post launch display) when the mission is TOO (AGM-84 Harpoon Avionic Inter face Schematic, A1-F18AC-740-500, WP054 03). |
| 5 | Maximum Pull-up Range | Displayed at 0 degrees azimuth to represent the maximum range of the HARM weapon if the aircraft executes a 45 degree pull-up (5g maneuver) (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |

Figure 4. HSI WeaponSymbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------------|--|
| 6 | PB/EOM Missile FOV | Displayed to illustrate the missile field of view at launch. HARM missile FOV is scaled to the compass rose and limited by the compass rose (AGM-88 HARM Target of Opportunity (TOO) Interface Schematic, A1-F18AE-740-500, WP057 02). AGM-88 HARM Pre-briefed (PB) Interface Schematic, A1-F18AC-740-500, WP059 00). |
| 7 | Launch Acceptability Region | Enclosed area defines the HARM EOM (equation of motion) for BP or TOO mode launch based on the selected POH (probability of hit) and the scale of the compass rose (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 8 | Minimum Range Arc | Indicates the current HARM minimum range calculated the same as for PB mode minimum range (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |

Figure 4. HSI Weapon Symbology (Sheet 6)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

STORES DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| A/A Gun DSTB Mode (Figure 1, Index 12) | 10 |
| A/A Stores Symbology (Figure 1) | 5 |
| A/C RNG (Figure 2, Index 6) | 18 |
| A/G Stores Symbology (Figure 2) | 12 |
| AGE (Figure 2, Index 3) | 18 |
| AGUN (Figure 1, Index 19) | 11 |
| ALT (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| AM CHAN (Figure 1, Index 10) | 10 |
| AM D/L Channel Degrade X (Figure 1, Index 18) | 11 |
| AM D/L Channel Digit (Figure 1, Index 17) | 11 |
| AM TEST (Figure 1, Index 15) | 11 |
| Angle Gate Enable (AGE) (Figure 2, Index 6) | 18 |
| ARM/SAFE/SIM (Figure 1, Index 4) | 9 |
| (Figure 2, Index 5) | 18 |
| AUTO (Figure 1, Index 16) | 20 |
| (Figure 1, Index 20) | 11 |
| (Figure 2, Index 30) | 22 |
| (Figure 2, Index 53) | 25 |
| BANK R or Bank L (Figure 2, Index 38) | 23 |
| Boat Cue (Figure 2, Index 48) | 24 |
| CCIP (Figure 2, Index 30) | 22 |
| D/ALT (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| D/RNG (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| DATA (Figure 2, Index 39) | 23 |
| Data Freeze Parameters (Figure 2, Index 38) | 23 |
| (Figure 1, Index 11) | 10 |
| (Figure 2, Index 42) | 23 |
| Data Link Weapon Controls (Figure 2, Index 46) | 24 |
| DEGD (Figure 1, Index 1) | 7 |
| (Figure 1, Index 21) | 11 |
| D/L (Figure 1, Index 1) | 7 |
| DLP Display Initiate (Figure 2, Index 47) | 24 |
| DLY 1 (Figure 2, Index 28) | 21 |
| DLY 2 (Figure 2, Index 28) | 21 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| DRAG (Figure 2, Index 27) | 21 |
| DSTB Mode, A/A Gun (Figure 1, Index 12) | 10 |
| EASB (Figure 2, Index 52) | 25 |
| EFUZ (Figure 2, Index 28) | 21 |
| Electrical Fuzing Options (Figure 2, Index 28) | 21 |
| Electronic Altitude Sensor Bypass (EASB) (Figure 2, Index 52) | 25 |
| ERROR (Figure 2, Index 42) | 23 |
| ERROR L or ERROR R (Figure 2, Index 42) | 23 |
| F DL (Figure 1, Index 1) | 7 |
| F SEL (Figure 1, Index 1) | 7 |
| FAIL (Figure 1, Index 1) | 7 |
| (Figure 1, Index 21) | 11 |
| FF (Figure 2, Index 27) | 21 |
| FLT (Figure 2, Index 7) | 19 |
| FPA (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| Fuzing Options | |
| Electrical Fuzing (Figure 2, Index 28) | 21 |
| Mechanical Fuzing (Figure 2, Index 29) | 22 |
| G (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| GUN (Figure 2, Index 9) | 19 |
| Gun Decoder Status (Figure 1, Index 21) | 20 |
| Gun DSTB Mode, A/A (Figure 1 Index 12) | 10 |
| Gun Fire Rate (Figure 1, Index 13) | 10 |
| Gun RDY (Figure 2, Index 8) | 19 |
| Gun Rounds Remaining (Figure 1, Index 9) | 10 |
| (Figure 2, Index 4) | 18 |
| H + LKD (Figure 1, Index 1) | 7 |
| H + TSN (Figure 1, Index 1) | 7 |
| H + ULK (Figure 1, Index 1) | 7 |
| HARM Mode (Figure 2, Index 16) | 20 |
| HARM Self-Protect Pullback Indication (Figure 1, Index 6) | 9 |
| (Figure 2, Index 11) | 19 |
| HI (Figure 1, Index 19) | 11 |
| HRM OVRD Option (Figure 1, Index 10) | 10 |
| (Figure 2, Index 17) | 20 |
| HRM RNG (Figure 2, Index 6) | 18 |
| HT (Figure 2, Index 40) | 23 |
| HT Setting (Figure 2, Index 41) | 23 |
| HUNG (Figure 1, Index 1) | 7 |
| IN RNG (Figure 2, Index 6) | 8 |
| INST (Figure 2, Index 28) | 21 |
| Introduction | 4 |
| L DL (Figure 1, Index 1) | 7 |
| L SEL (Figure 1, Index 1) | 7 |
| Land Threat List (Figure 2, Index 50) | 24 |
| LKD (Figure 1, Index 1) | 7 |
| LO (Figure 1, Index 13) | 10 |
| LOAD (Figure 2, Index 10) | 19 |
| LOFT (Figure 2, Index 30) | 22 |
| LOS (Figure 2, Index 33) | 22 |
| MAN (Figure 1, Index 16) | 11 |
| (Figure 1, Index 20) | 11 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| (Figure 2, Index 30) | 22 |
| (Figure 2, Index 53) | 25 |
| Mechanical Fuzing Options (Figure 2, Index 29) | 22 |
| MFUZ (Figure 2, Index 29) | 22 |
| MODE (Figure 2, Index 30) | 22 |
| M4/M66 (Figure 2, Index 31) | 22 |
| M4/M66 Box (Figure 2, Index 32) | 22 |
| M50 (Figure 2, Index 44) | 24 |
| NOSE (Figure 2, Index 29) | 22 |
| N/T (Figure 2, Index 29) | 22 |
| OFF (Figure 2, Index 28) | 21 |
| (Figure 2, Index 29) | 22 |
| PGU (Figure 2, Index 43) | 24 |
| Pre and Post Launch Time of Flight (Figure 2, Index 7) | 19 |
| Priority Station Selected (Figure 2, Index 25) | 21 |
| Priority Station - SLAM (Figure 2, Index 54) | 25 |
| PROG (Figure 2, Index 14) | 19 |
| PROG Number (Figure 2, Index 12) | 19 |
| PROG Select (Figure 2, Index 21) | 20 |
| Program Status (Figure 2, Index 19) | 20 |
| R DL (Figure 1, Index 1) | 7 |
| R SEL (Figure 1, Index 1) | 7 |
| Rack ID Character (Diamond) (Figure 2, Index 22) | 21 |
| RDY (Figure 1, Index 1) | 7 |
| (Figure 2, Index 2) | 18 |
| RDY (Gun) (Figure 2, Index 8) | 19 |
| RET (Figure 2, Index 27) | 21 |
| RMAX (Figure 2, Index 42) | 23 |
| RNDS (Figure 2, Index 42) | 23 |
| RNG (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| Rocket Delivery/Fire Sequence Options (Figure 2, Index 26) | 21 |
| Rocket Fire Sequence/Delivery Options (Figure 2, Index 26) | 21 |
| ROLL R or ROLL L (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| Rounds Remaining Gun (Figure 1, Index 3) | 9 |
| (Figure 2, Index 4) | 18 |
| S MODE (Figure 1, Index 20) | 20 |
| SAF DSBL (Figure 2, Index 35) | 22 |
| SAFE/ARM/SIM (Figure 1, Index 4) | 9 |
| (Figure 2, Index 5) | 18 |
| SAL (Figure 2, Index 26) | 21 |
| SDEGD (Figure 1, Index 1) | 7 |
| Sea Threat List (Figure 2, Index 49) | 24 |
| SGL (Figure 2, Index 38) | 23 |
| Shrike Selected (Figure 2, Index 51) | 24 |
| Sidewinder Missile Symbol (Figure 1, Index 14) | 19 |
| SIM (Figure 2, Index 34) | 22 |
| SIM/ARM/SAFE (Figure 1, Index 4) | 9 |
| (Figure 2, Index 5) | 18 |
| SP TEST (Figure 1, Index 8) | 10 |
| Sparrow Missile Symbols, Stations 2, 4, 6, and 8 (Figure 1, Index 2) | 8 |
| Sparrow Untuned X (Figure 1, Index 5) | 9 |
| Stations 1 thru 8 Status Characters (Figure 1, Index 1) | 7 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| Stations 1 thru 8 Store Characters (Figure 1, Index 7) | 9 |
| (Figure 2, Index 24) | 21 |
| Stations 1, 2, 8, and 9 Sidewinder Missile Symbol (Figure 1, Index 14) | 10 |
| Stations 2, 3, 4, 6, 7, 8 Medium Missile Symbol (Figure 1, Index 2) | 8 |
| Stations 2, 4, 6, and 8 Sparrow Missile Symbols (Figure 1, Index 2) | 8 |
| Stations 2, 4, 6, and 8 Sparrow Untuned X (Figure 1, Index 5) | 9 |
| Status Characters, Stations 1 thru 9 (Figure 1, Index 1) | 7 |
| Status, Program (Figure 2, Index 19) | 20 |
| STBY (Figure 1, Index 1) | 7 |
| STEP (Figure 2, Index 13) | 10 |
| Stores Characters (Figure 2, Index 1) | 18 |
| Store Characters, Stations 1 thru 9 (Figure 1, Index 7) | 9 |
| (Figure 2, Index 23) | 21 |
| Store Codes and Weapon Displays for Stations 1 and 9 (Table 2) | 29 |
| Store Codes and Weapon Displays for Stations 2 thru 8 (Table 1) | 29 |
| Stores Symbology | |
| A/A (Figure 1) | 5 |
| A/G (Figure 2) | 12 |
| SXXX (Figure 2, Index 51) | 24 |
| TAIL (Figure 2, Index 30) | 22 |
| TAS (Figure 2, Index 38) | 23 |
| (Figure 2, Index 42) | 23 |
| TEST (Figure 1, Index 1) | 7 |
| Time of Flight, Pre and Post Launch (Figure 2, Index 7) | 19 |
| TIMING (Figure 2, Index 36) | 22 |
| TOF (Figure 2, Index 38) | 23 |
| TOM (Figure 2, Index 38) | 23 |
| TONE (Figure 2, Index 20) | 20 |
| TSN (Figure 1, Index 1) | 7 |
| UFC (Figure 2, Index 15) | 20 |
| ULK (Figure 1, Index 1) | 7 |
| UNLK (Figure 2, Index 18) | 20 |
| VT (Figure 2, Index 28) | 21 |
| VT 1 (Figure 2, Index 28) | 21 |
| VT 2 (Figure 2, Index 28) | 21 |
| WDEGD (Figure 1, Index 1) | 7 |
| Weapon Count (Figure 1, Index 8) | 10 |
| (Figure 2, Index 23) | 21 |
| Weapon Delivery Modes (Figure 2, Index 30) | 22 |
| Wingform (Figure 2, Index 3) | 18 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to Stores displays. The illustrations are not meant to

represent typical displays, but to provide general appearance and positioning of the elements which make up Stores displays. The descriptions may contain schematic references which show the development of the display elements.

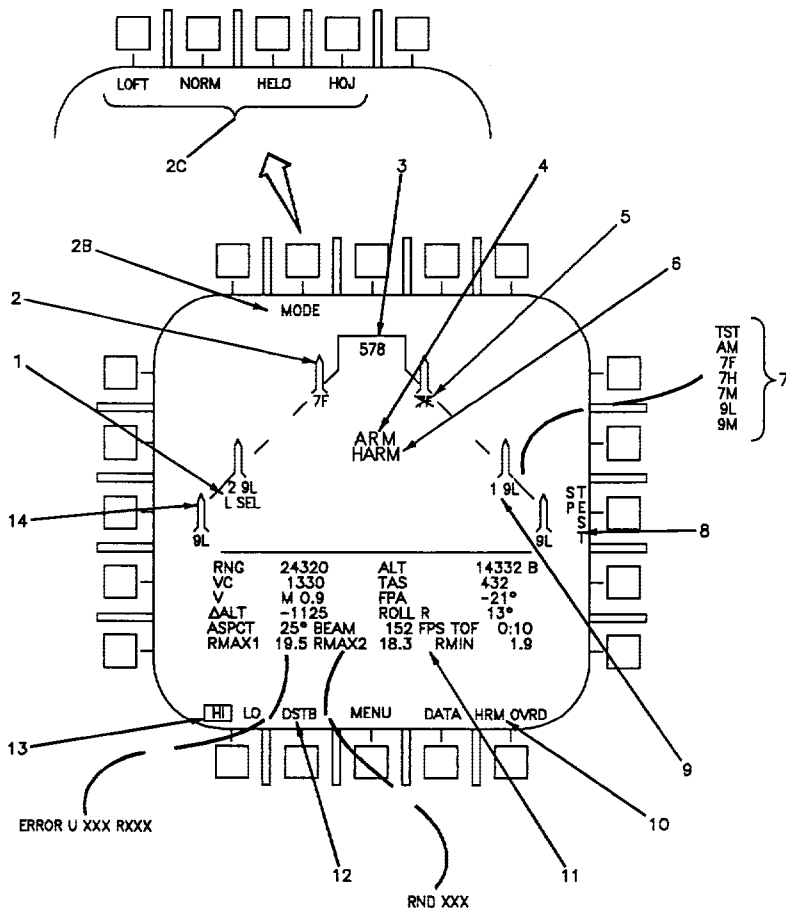


Figure 1. A/A Stores Symbology (Sheet 1)

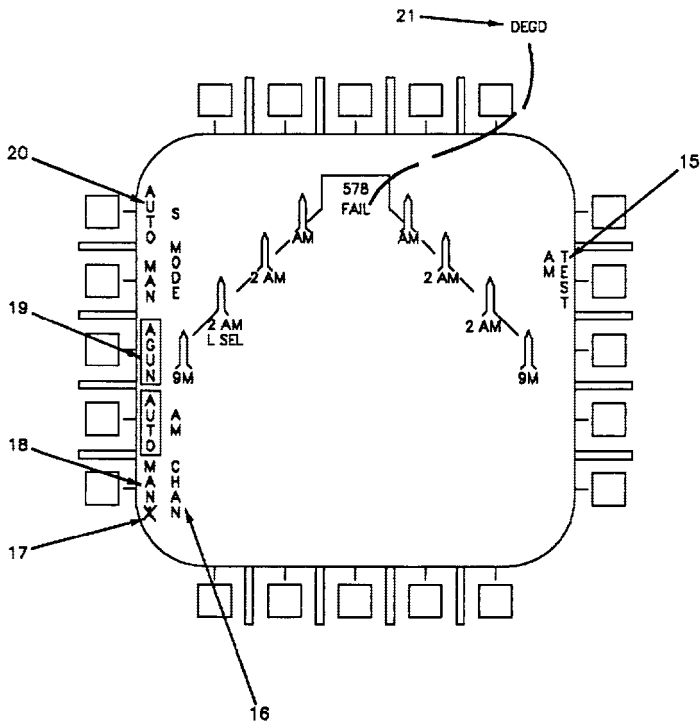


Figure 1. A/A Stores Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 1 | <p>Stations 1 Thru 9 Status Characters [ØTS(1-9)SW]</p> <p>L SEL R SEL F SEL</p> <p>HUNG</p> <p>H+TSN</p> <p>H+LKD</p> <p>H+ULK</p> <p>D/L</p> <p>R DL</p> <p>L DL</p> <p>F DL</p> <p>TEST</p> <p>LKD</p> | <p>Indicates status of the priority store. Displayed in A/A and A/G modes.</p> <p>Indicates priority station of selected weapon and the weapon station selected is ready for launch. L SEL or R SEL displayed when one of dual AIM-9 missiles on station 2 or 8 is selected and is priority weapon or when AMRAAM missile is selected on stations 2, 3, 7 or 8 and is priority weapon. F SEL displayed when AIM-7, or AMRAAM loaded on a fuselage station (station 4 or 6) and weapon status is standby or ready.</p> <p>Displayed after launch or jettison commanded but missile does not launch from aircraft. When HUNG is displayed, weapon station is removed from launch priority sequence. Not displayed for station 2 or 8 dual AIM-9 unless both missiles on the station are hung or only missile remaining on station is hung.</p> <p>When Harpoon weapon is hung, station will step to next station. Auxiliary release is required for weapon release.</p> <p>Displayed when weapon is hung and Aircraft Bomb Ejector Rack BRU-32/A is in transition.</p> <p>For A/G weapons, displayed when weapon is hung and Aircraft Bomb Ejector Rack BRU-32/A is locked. For A/A weapons, displayed when weapon hung and launcher is locked.</p> <p>Displayed when weapon is hung and Aircraft Bomb Ejector Rack BRU-32/A is unlocked.</p> <p>Displayed when the missile fails data link portion of AM Test (index 15) and no missile is selected.</p> <p>Displayed when right AMRAAM missile (station 7 or 8) is degraded.</p> <p>Displayed when left AMRAAM missile (station 2 or 3) is degraded.</p> <p>Displayed when fuselage AMRAAM missile (station 4 or 6) is degraded.</p> <p>Displayed when test is in progress on respective station.</p> <p>Displayed for stations 2 through 8 as a function of type of weapon/store aboard and landing gear up and locked. Indicates launcher/rack is locked. Displayed at all times for station where a fuel tank or Walleye Data Link Pod is loaded (when locked status is received from SMS). Not displayed when HUNG or FAIL status exist, when Maverick, HARM, AIM-9, Shrike, or MER loaded aboard station, or when store code is 82 (tester).</p> |

Figure 1. A/A Stores Symbology (Sheet 3)


| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| | ULK | Displayed for stations 2 through 8 as a function of type of weapon/store aboard and landing gear not up and locked. Indicates launcher/rack is not locked. Displayed when fuel tank or Walleye Data Link Pod is loaded and unlocked status is received from SMS. Not displayed when HUNG or FAIL status exist, when Maverick, HARM, AIM-9, Shrike, or MER loaded aboard station, or when store code is 82 (tester). |
| | FAIL | Displayed when stores management system (SMS) indicates no communication with weapon station decoder, a failure occurs preventing missile launch, weapon release, or gun firing or when stations 1, 2, 4, 6, 8, or 9 status is STBY during end-to-end test. When FLIR (station 4) or LDT/CAM (station 6) is aboard and communicating, FAIL is not displayed. |
| | DEGD | Displayed when SMS indicates both a weapon degrade and a weapon station decoder degrade or gun decoder degrade. |
| | SDEGD | Displayed when SMS indicates a weapon station decoder degrade. |
| | WDEGD | Displayed when SMS indicates a weapon degrade. |
| | TSN | Displayed (for nuclear weapons or non-droppable stores (DLP or Fuel)) when locked or unlocked status does not exist from SMS. Status is in transition. |
| | RDY | Displayed for HARM, Walleye, and Maverick when specific conditions for each weapon exist or when stations 1, 2, 4, 6, 8, or 9 status is STBY during end-to-end test. |
| | STBY | Displayed for HARM weapon when power on weapon but is not priority weapon or when stations 1, 2, 4, 6, 8, or 9 status is STBY during end-to-end test. (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| 2 | Stations 2, 3, 4, 6, 7, 8, Medium Symbol [ØTSPS (2,3,4,6,7,8)] | Displayed when mission computer system (MC) receives sparrow store code (index 7) from SMS. Not displayed when store code is 82 (tester) (AIM-7 Sparrow Avionics Interface Schematic, A1-F18AC-740-500, WP041 00). |
| 2B | Special Launch Mode Option (ØTGTMĐ) (ØTGTM1) (ØGTGMX)  | MODE option is displayed on the top level A/A store display when AIM-7 is the selected weapon (Any AIM-7 type). Selected mode is also displayed. An X is displayed over the mode if it is not valid. Pressing MODE pushbutton causes special launch mode sublevel pushbuttons (index 2C) to be displayed. Mode option in initialized in NORM mode (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP041 00). |

Figure 1. A/A Stores Symbology (Sheet 4)


| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 2C | Special Launch Mode Sublevel (ØTAAØP)  | Special launch mode options LOFT, NORM, HELO, and HOJ are displayed at push-buttons 9 thru 0. Pressing any special launch mode pushbutton selects that launch mode and returns to the top level stores display. HELO is displayed when AIM-7H is the selected weapon. An X is displayed over the HELO option if enabling parameters are not met. HOJ is displayed when AIM-7H is the selected weapon and the radar is OFF, STBY, SIL, or EMCOM. LOFT is displayed when AIM-7H is the selected weapon and the radar is in full track. An X is displayed over the LOFT option if LOFT mode is disabled (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP041 00). |
| 3 | Gun Rounds Remaining (ØTGUND) | Gun rounds (± 10) displayed when available. If no rounds remain, XXX is displayed (Air to Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 4 | ARM/SAFE/SIM (ØTARMW) | ARM and SAFE are displayed when MASTER switch on Master Arm Control Panel Assembly is set to ARM or SAFE respectively and SIM mode is not selected (figure 2, index 34). SIM is displayed when SIM mode is selected and boxed (figure 2, index 34) (Master Arm Schematic, A1-F18AC-740-500, WP016 00). |
| 5 | Stations 2, 4, 6, or 8 Sparrow Untuned X [ØTSPX (2,4,6,8)] | X displayed through Sparrow symbol when SMS indicates Sparrow missile is not tuned (AIM-7) Sparrow Avionics Interface Schematic, A1-F18AC-740-500, WP041 00). |
| 6 | HARM Self-Protect Pullback Indication (ØTSHRM, ØTTHRM) | Displayed when a pullback threat detected while HARM missiles are loaded on aircraft. HARM displayed if a missile is ready for launch. HARM displayed superimposed by a large X, if missile is not ready for launch. PLBK is displayed if HARM OVRD option (index 10) selected (AGM-88 HARM Pre Brief (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 7 | Stations 1 Thru 9 Store Characters [ØTS(1-9)LW] | Type of store loaded on each station determines weapon symbol to be displayed except during SIM mode when AIM-7 station will display 7M regardless of what is loaded. The MC receives a store code for each store loaded from the SMS per tables 1, 2, 3 or 4 (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |

Figure 1. A/A Stores Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 2 | AIM-7 Designation | Displayed when AIM-7 is the selected weapon. Pressing the AIM-7 designation pushbutton will command the SMS to upgrade the AIM-7 type from the type indicated by the configuration ID displayed on the wing form. The order of upgrade is 7F, 7M, 7H, and back to 7F. The SMS will display configuration IDs from only the AIM-7 types that are loaded on the aircraft. |
| 8 | SP TEST (ØTSP TL, ØTSP TB) | Displayed in NAV and A/A master modes when radar system and stores management system provide the mission computer (MC) with available for tuning discretes. TEST is boxed when SP TEST (missile tune) has been selected either by the MC or the pilot Pushbutton manually enables AIM-7 tuning when pressed. Test can be interrupted by a HARM Self-Protect condition or when any A/A weapon is selected (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP041 00). |
| 9 | Weapon Count [ØTS(1-9)CW] | Indicates total number of weapons loaded aboard each station for stations 2, 3, 5, 7, and/or 8 (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| 10 | HRM OVRD Option (ØTSH ØL) | Displayed when HARM missile is loaded aboard aircraft. Selection of pushbutton option overrides HARM Self-Protect Pullback mode and allows selected A/A weapon to remain in priority for launch or firing. Option boxed when selected (AGM-88 HARM Pre Brief (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 11 | Data Freeze Parameters (ØTDAIR) | Displayed when DATA freeze pushbutton (figure 2, index 38) pressed, radar is in Single Target Track (STT), and Sparrow, Sidewinder, or A/A gun is most recent weapon released/fired (Data Freeze Display Schematic, A1-F18AC-740-500, WP062 00). |
| 12 | A/A Gun DSTB Mode (ØTGD SL) | Pushbutton switch selects A/A gun disturbed (DSTB) mode. When DSTB is selected, the DSTB legend is boxed. When pushbutton switch is not selected, gun is in primary operating mode (Director) (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 13 | Gun Fire Rate (ØTØSET) | Pushbutton switch selects gun fire rate. Displayed when gun is available. High rate (HI) is initialized on power up, pressing pushbutton switch selects the alternate gun fire rate (LO). Gun fire rate legend is boxed when selected (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 14 | Stations 1, 2, 8, 9 Sidewinder Missile Symbol (ØTWS(1,2,8, 9) | Displayed when AIM-9 sidewinder missile loaded on station. When missiles are released and weapon count reaches zero, missile symbol is removed. Not displayed when store code is 82 (tester) (table 1). (AIM-H Sidewinder Avionic Interface Schematic, A1-F18AC-740-510, WP036 00). |
| 15 | AM TEST (ØTAM TL, ØTAM TB) | Displayed in NAV and A/A master modes when radar system and stores management system (SMS) are available for test and SMS provides the MC with a test request. TEST is boxed when AM TEST pushbutton is pressed. When an AMRAAM station has a data link failed missile (index 1), AM TEST should be initiated. Test can be interrupted by a HARM self-protect condition or when any A/A weapon is selected. |

Figure 1. A/A Stores Symbology (Sheet 6)





| Index No. | Display Element (Ref Code) | Description |
|--|--|---|
| 16 | AM CHAN (ØTAMBY, ØTAMCB) | Displayed in A/A master mode or NAV master mode and A/G weapon not selected. AM CHAN is initialized to AUTO at power up. When MAN pushbutton is pressed, MAN legend is boxed and channel number (index 17) remains unchanged. Subsequent pressing of MAN pushbutton will cycle channel number. Selected mode (MAN or AUTO) will remain displayed for all A/A weapons selected. |
| 17 | AM D/L Channel Digit (ØTAMCD) | Indicates AM D/L channel selected. Pressing of MAN pushbutton (index 16) cycles AM D/L channel. Channel number will remain displayed for all A/A weapons selected. |
| 18 | AM D/L Channel Degrade X (ØTAMCX) | Displayed over channel number when channel has failed. When a failed channel is selected, mode (index 15) reverts to AUTO. |
| 19 |  AGUN (ØTSSP6) |  Displayed to enable selection of A/A “smart trigger” when A/A director gunsight mode is active. Option is boxed when selected and remains selected when master mode or weapon is changed. Pressing AGUN option when boxed deselects AGUN (Air-to-Air Gun Avionics Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 20 | S MODE (ØTAMBY, ØTAMSB) | Displayed in A/A master mode or NAV master mode and A/G weapon not selected. S MODE is initialized to AUTO at power up. Selected mode (MAN or AUTO) will remain displayed for all A/A weapons selected. |
| 21 | Gun Decoder Status (ØTSGSW) | Display indicates FAIL or DEGD status of the Gun Command Signal Encoder - Decoder KY-855/AYQ-H(V) (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| LEGEND | | |
|  Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000). | | |
|  Digital Data Computer CONFIG/IDENT Number 92A AND UP (A1-F18AC-SCM-000). | | |

Figure 1. A/A Stores Symbology (Sheet 7)

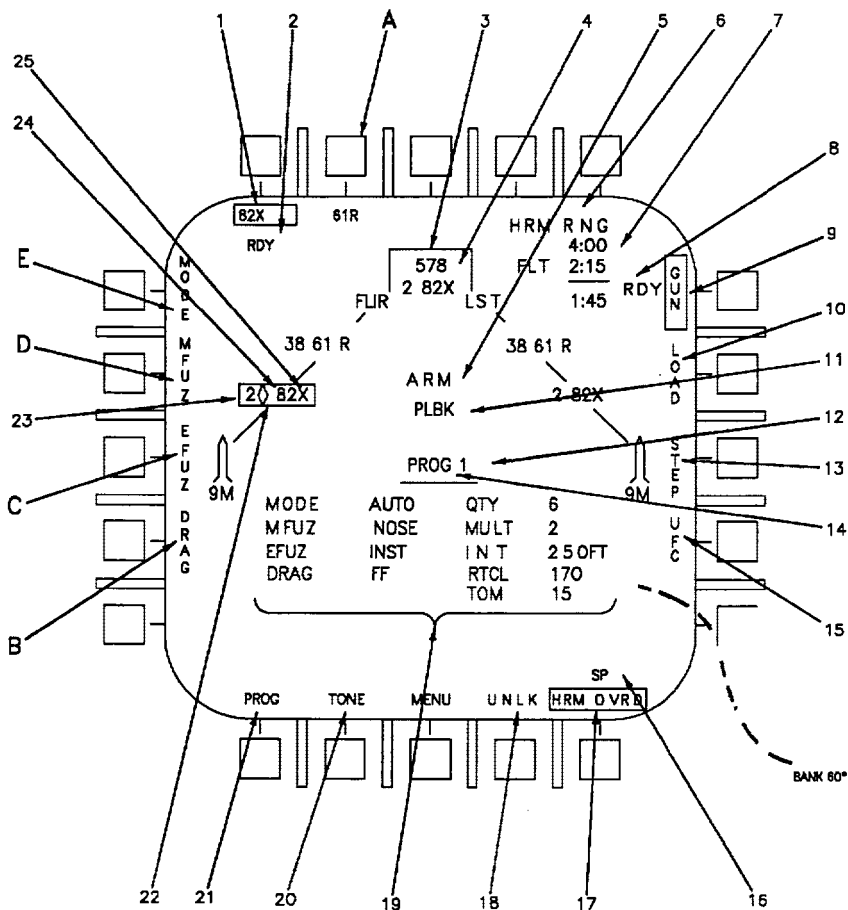


Figure 2. A/G Stores Symbology (Sheet 1)

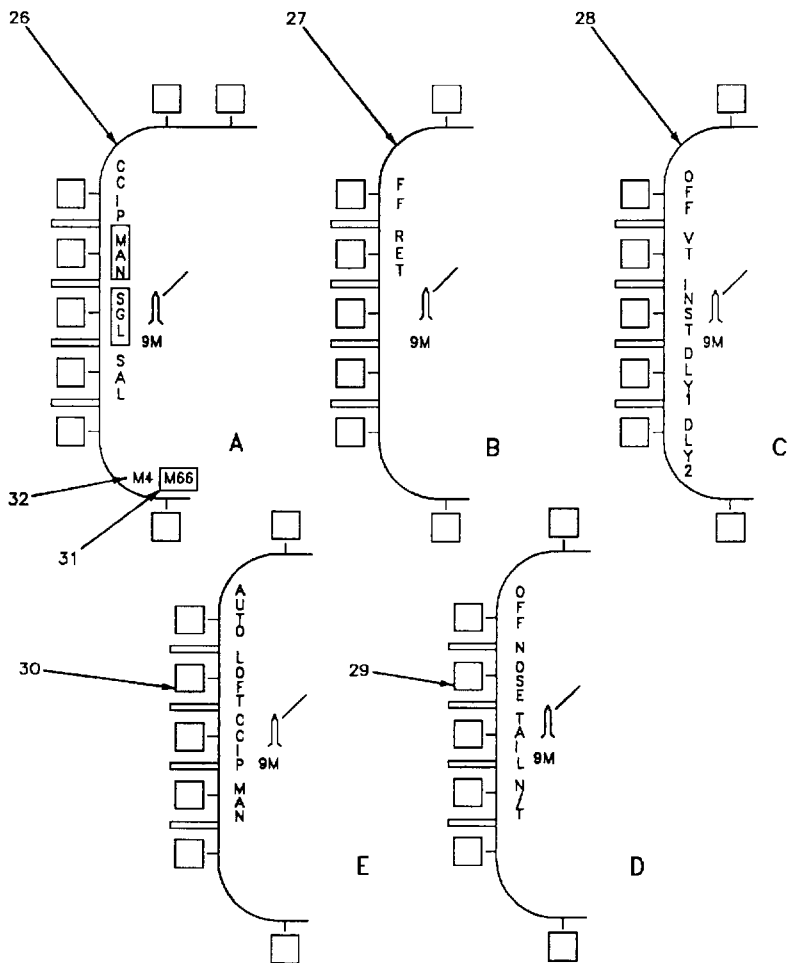


Figure 2. A/G Stores Symbology (Sheet 2)

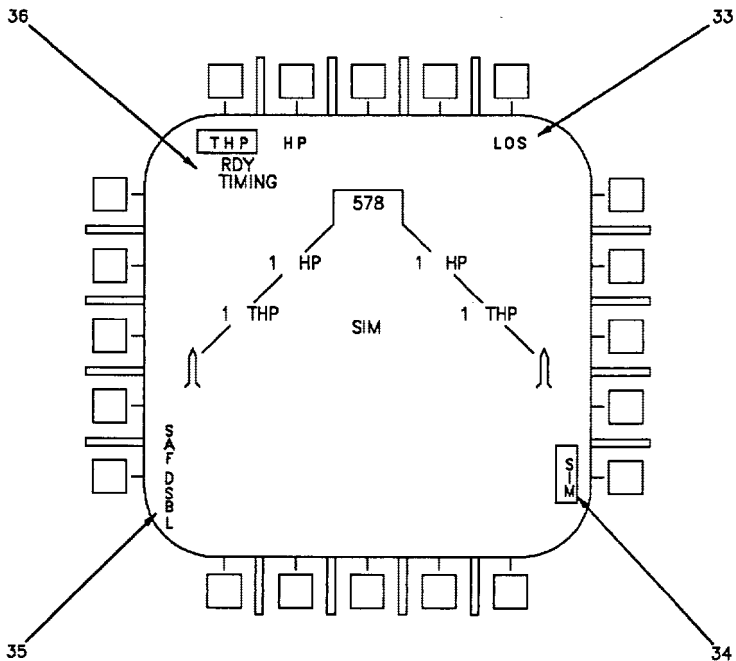


Figure 2. A/G Stores Symbology (Sheet 3)

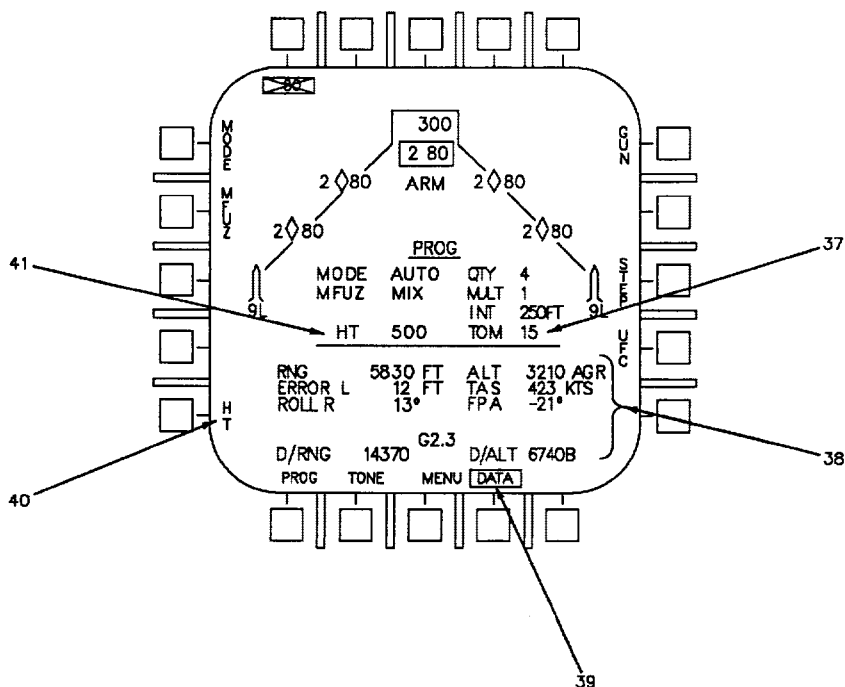


Figure 2. A/G Stores Symbology (Sheet 4)

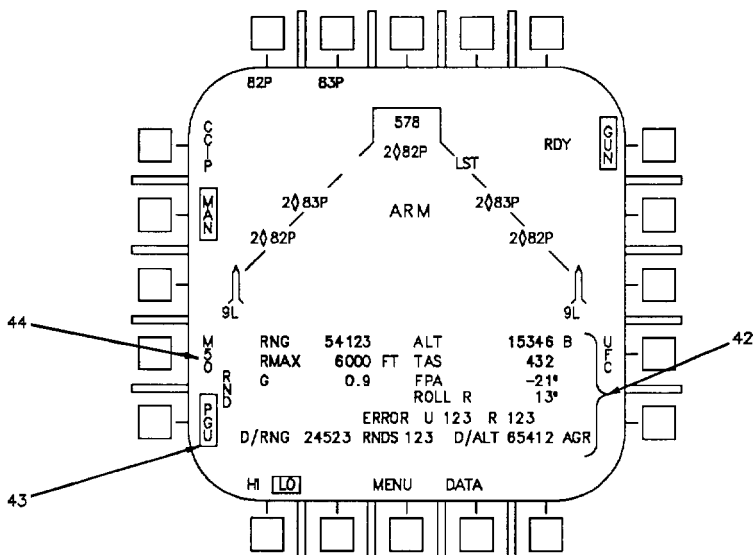


Figure 2. A/G Stores Symbology (Sheet 5)

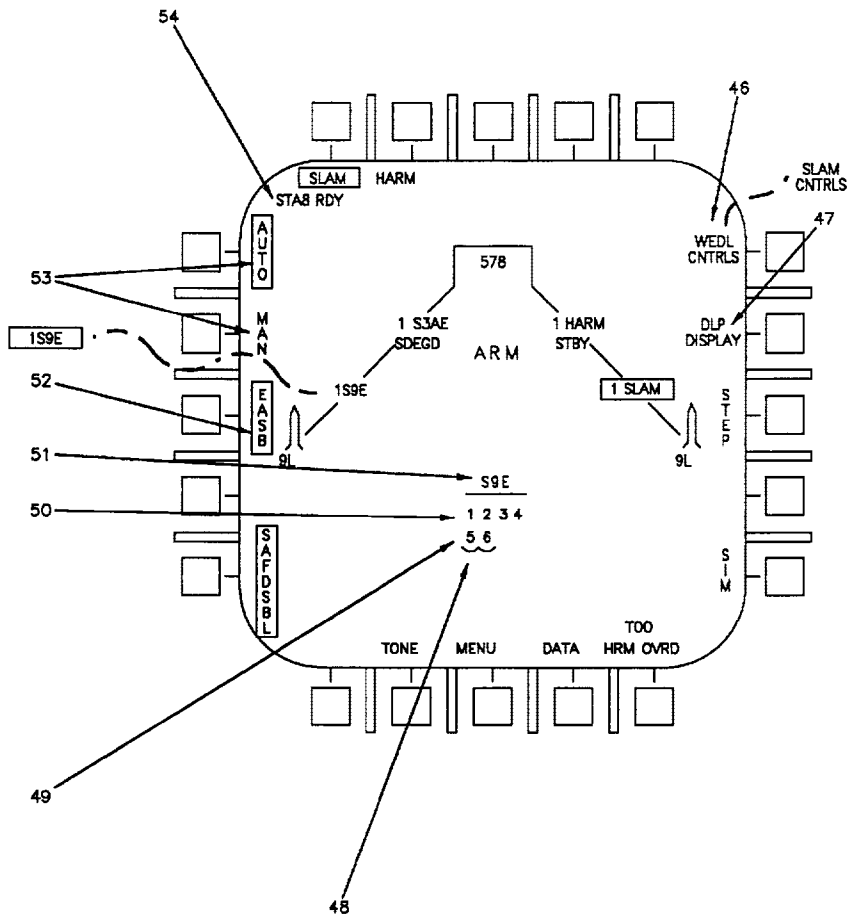


Figure 2. A/G Stores Symbology (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 1 | Stores Characters (ØT06BW, ØT10BW) | The type of store loaded on each situation determines what label is displayed for pushbuttons 6 thru 10. The mission computer (MC) receives from the stores management system (SMS) a store code for stores loaded on each station. For each different type of weapon loaded, a pushbutton is labeled per table 1 or 2. Pushbutton action causes MC to output selected A/G store to SMS and legend is boxed. GUN, 9M, 9L, 7F, 7M, TST and AM are not displayed at these pushbuttons (Weapon Select Schematic, A1-F18AC-740-500, WP015 00). |
| 2 | RDY (ØTSELR, ØTSELX) | Indicates that all preparation for selected weapon type has been completed. Prior to RDY display, selected weapon pushbutton label has large X superimposed (Weapon Select Schematic, A1-F18AC-740-500, WP015 00). |
| 3 | Wingform (ØTSBYP) | Wingform indicates type and number of all stores loaded on the aircraft, including: 1. Sidewinder and Sparrow missile shapes. 2. Store characters for the stores loaded on stations 2, 3, 5, 7, and 8 (table 1). 3. FLIR and LST characters for stations 4 and 6, respectively, when these pods are loaded and communicating on the multiplex bus. 4. Station status, as appropriate, at stations 2, 3, 5, 7, and 8. (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| 4 | Gun Rounds Remaining (ØTGUND) | Gun rounds remaining (± 10) displayed when available. If no rounds remain, XXX is displayed (Air To Ground Gun Avionics Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 5 | ARM/SAFE/ SIM (ØTARMW) | ARM and SAFE are displayed when MASTER switch on Master Arm Control Panel Assembly is set to ARM or SAFE respectively and SIM mode is not selected (index 34). SIM is displayed when SIM mode is selected and boxed (index 34) (Master Arm Schematic, A1-F18AC-740-500, WP016 00 or Simulation Mode Select Schematic, A1-F18AC-740-500, WP020 01). |
| 6 | HRM RNG, A/C RNG, IN RNG, AGE (ØTSIRL, ØTSIRP, ØTSIRQ) | IN RNG displayed when Walleye or HARM weapon in range. A/C RNG displayed when MC has computed a HARM to be in range if the aircraft executes a pullup. When the HARM is in range to reach the target by executing a pullup after launch, HRM RNG is displayed. AGE (angle gate enable) cue displayed when compatible with the Shrike seeker head and selected with the cage/uncage switch. Selection of AGE narrows the Shrike field of view (AGM-88 HARM Avionic Interface Schematic - Pre Brief (PB) Mode, A1-F18AC-740-500, WP059 04 or AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |

Figure 2. A/G Stores Symbology (Sheet 7)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 7 | Pre and Post Launch Time of Flight (ØTHIFL, ØTHIFM, ØTHIFS) | Pre launch time of flight is displayed when IN RNG cue (index 6) is displayed. When a HARM is launched, the post launch time of flight in minutes and seconds and FLT legend is displayed under the pre launch time of flight. After a HARM is launched, the post launch time of flight and FLT remains until it counts to zero. When both pre and post launch time of flight are displayed, a delta time is also displayed (AGM-88 HARM Avionic Interface Schematic - Pre Brief (PB) Mode, A1-F18AC-740-500, WP059 04). |
| 8 | RDY (Gun) (ØTGUBR) | A/G gun ready indication when gun enabled and ready (Air To Ground Gun Avionics Interface Schematic, A1-F18AC-760-500, WP006 00). |
| 9 | GUN (ØTGUNS) | Pushbutton switch selects a/g gun as either the primary weapon or enables gun firing when a bomb or rocket type is selected. Gun firing cannot be enabled when a nuclear weapon is selected. Legend is boxed when pushbutton switch is selected. Legend is superimposed by X when gun not ready (Air To Ground Gun Avionics Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 10 | LOAD (ØT12BW) | The LOAD pushbutton label is displayed when a MER is aboard. When MER ident exists, a store count of 6 is sent from the SMS to the MC for display. The LOAD pushbutton is pressed to decrement the MER load count by one each time pressed. When MER loaded on more than one weapon station, STEP option pushbutton (index 13) pressed to allow use of LOAD pushbutton on other weapon station (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| 11 | HARM Self-Protect Pull-back Indication (ØTSHRM, ØTTHRM) | HARM in displayed when HARM aboard, self-protect pullback exists, and HARM ready for launch. If HARM not ready for launch, HARM is displayed, superimposed by a large X. If HARM override is selected, PLBK is displayed (AGM-88 HARM Avionic Interface Schematic - Pre Brief (PB) Mode, A1-F18AC-740-500, WP059 04). |
| 12 | PROG Number (ØTPRGN) | Indicates program number received by MC from the SMS. Program number changed when PROG pushbutton (index 21) is pressed. PROG 5 is designated as manual mode program only (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |
| 13 | STEP (ØTSTPL) | STEP pushbutton option provides for selection of the next highest priority station for the selected weapon type if that weapon type is loaded aboard more than one weapon station (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| 14 | PROG (ØTPCØM) | The SMS stores the delivery parameters for five separate programs. When selections of all applicable options are not complete, X is superimposed over PROG (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |

Figure 2. A/G Stores Symbology (Sheet 8)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------|--|
| 15 | UFC (ØTUFCS) | Quantity, interval, and multiple values are programmed using the UFC pushbutton option. When pushbutton is pressed, the program options on the right side of the program data display (index 19) are entered by way of the Electronic Equipment Control C-10380/ASQ (electronic equipment control). Data entered is sent to the SMS for storage in the selected program. When guns or rockets are selected, the UFC option is available in MAN (manual) mode only for RTCL (reticle) data entry (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |
| 16 | HARM Mode (ØTSHML) | Indicates the HARM mode when the Command Launch Computer CP-1001/AWG (CLC) is on (AGM-88 HARM Avionic Interface Schematic - Target of Opportunity (TOO) Mode, A1-F18AC-740-500, WP052 02, AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03, or AGM-88 HARM Avionic Interface Schematic - Pre Brief (PB) Mode, A1-F18AC-740-500, WP059 04). |
| 17 | HRM OVRD Option (ØTSHØL) | Displayed when HARM store code 64 (table 1) exists from SMS. When selected, provides for override of HARM Self-Protect Pullback mode to allow for continued delivery of selected weapon without interruption. Pushbutton label is boxed when selected (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 18 | UNLK (ØTUNLK) | Displayed when any Aircraft Bomb Ejector Rack BRU-32/A (BRU-32/A) fails to unlock when commanded by SMS. When pushbutton is pressed, an unlock command is sent to the BRU-32/A racks that failed to unlock (Launcher/Rack Lock/Unlock Schematic, A1-F18AC-740-500, WP019 00). |
| 19 | Program Status (ØTØSET) | Lists the parameter options in the selected program and indicates program readiness. When fault exists, option status is blank. When option selected by way of equipment control is not compatible, override value provided by SMS is displayed with an asterisk. Display available for conventional weapons only (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |
| 20 | TONE (ØTTØNL) | TONE pushbutton enables COMM transmit tone from Receiver-Transmitter RT-1250()/ARC No. 1 (COMM 1) or No. 2 (COMM 2) when required for weapon release. When A/G master mode exists, TONE is displayed. When TONE pushbutton is first pressed, TONE 1 is displayed and boxed to indicate COMM 1 is enabled for transmitting a tone at weapon release. When pushbutton is pressed again, TONE 2 is displayed and boxed and COMM 2 is enabled. TONE available for all A/G weapons except gun (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 21 | PROG select (ØTPNPB) | Pressing PROG pushbutton selects any of five conventional bomb programs (programs 1, 2, 3, 4, or 5). Program 5 is always a manual mode program. When A/G gun is selected, gun fire rate options are displayed at this pushbutton (figure 1, index 13) (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |

Figure 2. A/G Stores Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 22 | Rack ID Character (Diamond) (ØTS(2-8)RW) | Displayed when Aircraft Bomb Ejector Rack BRU-33/A (VER), Multiple Ejector Rack (MER), or Triple Ejector Rack (TER) is loaded aboard aircraft (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). |
| 23 | Weapon Count (ØTS(1-9)C-W) | Indicates total number of weapons of same weapon type loaded aboard stations 2, 3, 5, 7, and 8 (Stores Inventory Schematic, A1-F18AC-740-500, WP014 00). For troubleshooting relating to specific weapon stations, see table 15, WP005 00. |
| 24 | Stations 1 thru 9 Store Character (ØTS(1-9)LW) | Indicates type of store loaded on each weapon station. The MC receives a store code from the SMS for stores loaded on each weapon station. Store characters are labeled per table 1, 2, 3 or 4 (Weapon Select Schematic, A1-F18AC-740-500, WP015 00). |
| 25 | Priority Station Selected (ØTPSBX) | Box around weapon character at station 2, 3, 5, 7, or 8 indicates the first station (priority station) from which the selected A/G weapon will be released. Rockets priority station boxed only when single (SGL, index 26) mode is selected (Weapon Select Schematic, A1-F18AC-740-500, WP015 00). |
| 26 | Rocket Delivery/Fire Sequence Options (ØTMSET) | Displayed when rockets are selected weapon. Rocket delivery modes are selected by pushbutton options CCIP and MAN. One of the modes is selected and boxed at all times. Firing sequence options of single (SGL) and salvo (SAL) are also displayed. When SGL sequence option is selected, priority station (index 25) is boxed. When SAL sequence option selected, priority station (index 25) is not boxed (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 27 | DRAG (ØT2PBW) | Available only for the MK-82 Snakeye bomb store code 28 or 29 (table 1), configured for inflight selectable drag options. When DRAG pushbutton is pressed, the drag options free fall (FF) and retard (RET) are displayed. When the drag option is selected, the option is displayed on the DRAG line of program status (Index) (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 28 | EFUZ (ØT3PBW) | EFUZ displayed when the SMS identifies to MC that electrical fuze options are available for selection based on nose and tail fuze codes set into the Armament Computer CP-1342/AYQ-9(Y) (armament computer) for the selected weapon. When EFUZ pushbutton option is pressed, the electrical fuzing options applicable to the selected weapon are displayed. The options OFF, VT (variable time or proximity), INST (instantaneous), VT 1 (variable time one), VT 2 (variable time two), DLY 1 (delay one), and DLY 2 (delay two) are provided when the codes are set into the armament computer. When the option is selected, the selected fuzing is displayed in the EFUZ line of the program status (index 19) (Electrical Fuzing Schematic, A1-F18AC-740-500, WP042 00). |

Figure 2. A/G Stores Symbology (Sheet 10)





| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 29 | MFUZ (ØT4PBW) | MFUZ displayed when SMS identifies to MC that mechanical fuze options are available for selection based on nose and tail fuze codes set into the armament computer for the selected weapon. When MFUZ pushbutton is pressed, the mechanical fuzing options applicable to the selected weapon are displayed. The options OFF, NOSE, TAIL, and N/T (nose and tail) are provided when the codes are set into the armament computer. When the option is selected, the selected fuzing is displayed in the MFUZ line of the program status (index 19) (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 30 | MODE (ØT5PBW) | MODE option displayed for programs 1 thru 4 (index 12) only. When MODE pushbutton is pressed, the four mode options AUTO, (LOFT for nuclear weapons), CCIP, and MAN are displayed. When a mode is selected, the mode is displayed in the MODE line of program status (index 19) (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |
| 31 |  M4/M66 Box (ØTRKTB) |  Box indicates rocket motor type selected. Pressing pushbutton alternates selection (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04). |
| 32 |  M4/M66 (ØTRKTM) |  Pushbutton selects M4 or M66 rocket motor when 2.75 inch rocket is selected. Pressing pushbutton alternates selection (boxed) (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP050 04). |
| 33 | LOS (ØTPSTL) | Displayed and flashed when Harpoon is selected (HP or THP). LOS flashes for 40 seconds during which straight and level flight on the launch heading must be maintained. When the LOS stops flashing, the Harpoon gyro is erect and the weapon is ready for launch (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP060 04). |
| 34 | SIM (ØTSIML, ØTSIMB) | Displayed when MASTER switch on Master Arm Control Panel Assembly is set to SAFE position. Legend is boxed when pushbutton is pressed and SIM mode enable is received by mission computer system from SMS. SIM mode inhibits master arm. If MASTER switch is set to ARM before SIM mode is deselected, master arm logic will remain SAFE until MASTER switch is cycled (Simulation Mode Select Schematic, A1-F18AC-740-500, WP020 01). |
| 35 | SAF DSBL (ØTPSDL, ØTPSDB) | Displayed when training Harpoon (THP) or Training SLAM (TSLM) is selected. Legend is boxed when selected and SMS provides the fail safe lockout signal to the training Harpoon. This allows the weapon to be launched even though it is not receiving a range tone. (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-600, WP060 04). |
| 36 | TIMING (ØTPTMG) | Displayed for 20 seconds after seeker standby power is applied for Harpoon or 55 seconds for SLAM. If the missile is launched while TIMING is displayed, the missile seeker will not turn on until it has completed warmup. (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP060 04). |
| 37 | TOM (ØTTØML, ØTTØMØ, ØTTØUD) | Indicates agent time-of-mix setting in the CSC entered by way of the equipment control (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP049 00). |

Figure 2. A/G Stores Symbology (Sheet 11)



| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 38 | Data Freeze Parameters (Bomb) | When DATA option is selected (index 38), data from the last bomb or HARM release in A/G master mode or last designation in NAV or A/G is frozen and stored in memory. |
| | (ØTDSGL) | The data stored at destination are: |
| | (ØTDRNF) | Designated Slant Range D/RNG Designated Altitude D/ALT |
| | (ØTRNGL) | The data stored at release are: |
| | (ØTALTL) | Slant Range RNG |
| | (ØTERRL) | Altitude ALT (B, AGR, LTD, R) |
| | (ØTRØLL) | Steering Error ERROR L or ERROR R |
| | (ØTACLL) | Roll Angle ROLL R or ROLL L |
| | (ØTTASL) | Normal Acceleration G |
| | (ØTTFPAL) | True Airspeed TAS |
| | (ØTDTFX) | Flight Path Angle FPA |
| | (ØTDBKX) | Time of Fall TOF Bank Angle BANK R or BANK L (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 39 | DATA (ØTSHØB) | Displayed once the UNLK option (index 18) has been actuated and the racks are unlocked. When selected, provides for data to be frozen and stored during designation or bomb release (index 38) (Bomb Avionics Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 40 | HT (ØT01BL) | Option is used to select the height of burst setting for the weapon delivery calculations. Setting of 300, 500, 700, 900, 1200, 1500, 1800, 2200, 2600 or 3000 is displayed (index 41) (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 41 | HT Setting (ØTØSET) | Indicates height of burst setting selected by HT pushbutton (index 40) (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP048 00). |
| 42 | Data Freeze Parameters (Gun or Rocket) | Displayed when DATA freeze pushbutton (index 39) pressed and most recent weapon fired was a/g gun or rocket. |
| | (ØTFZBY) | The data displayed and stored are: |
| | (ØTDRGX) | Slant Range RNG |
| | (ØTDRXX) |  Maximum Range RMAX |
| | (ØTDAC1) | Normal Acceleration G |
| | (ØTDAL1) | Altitude ALT (B, AGR, LTD, R) |
| | (ØTDTS1) | True Airspeed TAS |
| | (ØTDFA1) | Flight Path Angle FPA |
| | (ØTDRL1) | Roll Angle ROLL R or ROLL L |
| | (ØTDLRX) |  Error Angle ERROR (if sensor is tracking) |
| | (ØTDDRXX) | Range at Designation D/RNG |
| | (ØTDDA1) | Gun Rounds RNDs |
| | (ØTDREX) | Altitude at Designation D/ALT |

Figure 2. A/G Stores Symbology (Sheet 12)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 43 | PGU (ØTGRSB) | Displayed when gun selected (index 9). When pushbutton is pressed, ballistics computations for the high speed PGU-28B 20mm rounds are selected. Legend is boxed when selected (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00 or Air To Ground Gun Avionic Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 44 | M50 (ØTGRSB) | Displayed when gun is selected (index 9). When pushbutton is pressed, ballistics computations for the M50 20mm rounds are selected. Legend is boxed when selected (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00 or Air To Ground Gun Avionic Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 45 | | Deleted. |
| 46 | Data Link Weapon Controls (ØTDLWW) | Displayed when a data link weapon is selected. WEDL CNTRLS is displayed when WEDL is the selected weapon. SLAM CNTRLS is displayed when SLAM is selected. When DLP is selected and no data link weapon is carried, WEDL CNTRLS is displayed initially and pressing the pushbutton toggles WEDL CNTRLS/SLAM CNTRLS (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 47 | DLP DISPLAY Initiate | Displayed when a data link weapon is selected or DLP is selected with no weapon aboard. Selecting DLP DISPLAY pushbutton initiates the data link pod display format and the data link weapon controls selected (index 46) (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 48 | Boat Cue (ØTINTL, ØTDW42) | A boat symbol under the threat type indicates a sea threat. (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |
| 49 | Sea Threat List (ØTEFZL, ØTQTYL, ØTDW20, ØTDW29) | A list of the types of sea threats that correlate to the type of Shrike selected. The threat list will be in priority order. (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |
| 50 | Land Threat List (ØTDV93, ØTDV94, ØTDRGL, ØTDW02, ØTDW11, ØTMFZL) | A list of the types of land threats that correlate to the type of Shrike selected. The threat list will be in priority order. (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |
| 51 | SXXX (ØTSPDL) | The selected Shrike from the wingform is displayed over the land and sea threat lists. See table 2 (store code 59) for possible weapon displays (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |

Figure 2. A/G Stores Symbology (Sheet 13)

| Index No. | Display Element (Ref Code) | Description |
|---|---|---|
| 52 | EASB (ØTHM04, ØTHM05, ØTHN31, ØTDN35) | Electronic Altitude Sensor Bypass (EASB) displayed if it is a selectable option for the type of Shrike selected. Legend is boxed when selected (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |
| 53 | AUTO, MAN (ØT5PBW) | AUTO and MAN are displayed when Shrike is selected. The applicable delivery mode legend is boxed when selected (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP063 01). |
| 54 | <div><div>2</div>► Priority Station - SLAM</div> | <div><div>2</div>► Displays selected SLAM station when store pushbutton (index 1) is selected and boxed.</div> |
| LEGEND | | |
| <div><div>1</div>► In CCIP Mode Only.</div> | | |
| <div><div>2</div>► Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000).</div> | | |

Figure 2. A/G Stores Symbology (Sheet 14)

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8













| Store Code | Weapon Display | Store Description |
|------------|--|--|
| 00 | none | No Store (Empty Station) |
| | (BLANK) | |
| 01 | FUEL | Fuel Tank |
| 02 | RET | MK-20 Rockeye II, MOD 6 With Thermal Protection |
| 03 | RE | MK-20 Rockeye II, MOD 6 Without Thermal Protection |
| 04 | APAM | CBU-59/B APAM |
| 05 | GATR | GATOR Mine (CBU-78B) |
| 06 | 76 | MK-76 Practice Bomb (Conventional Use) |
| 07 | 106 | MK-106 Practice Bomb (Conventional Use) |
| 08 | 48 | BDU-48 High Drag Practice Bomb |
| 09 | BL-1 | BL-755(1) Cluster Bomb Release Altitude 1 |
| 10 | BL-2 | BL-755(2) Cluster Bomb Release Altitude 2 |
| 11 | BL-3 | BL-755(3) Cluster Bomb Release Altitude 3 |
| 12 | BL-4 | BL-755(4) Cluster Bomb Release Altitude 4 |
| 13 | 84 | MK-84 Without Thermal Protection |
| 14 | 84T | MK-84 Thermally Protected |
| 15 | 84LG | MK-84 Laser Guided Bomb, With/Without Thermal Protection |
| 16 | 83B | MK-83 Blunt Nose Without Thermal Protection |
| 17 | 83P | MK-83 Pointed Nose Without Thermal Protection |
| 18 | 83BT | MK-83 Blunt Nose, Thermally Protected |
| 19 | 83PT | MK-83 Pointed Nose, Thermally Protected |
| 20 | 80 | BLU-80 Bigeye |
| 21 | 77 | MK-77 Fire Bomb |
| 22 | 83CT | MK-83 High Drag (BSU-85) Without Thermal Protection |
| 23 | 83LG | MK-83 Laser Guided Bomb, With/Without Thermal Protection |
| 24 | 82B | MK-82 Blunt Nose Without Thermal Protection |
| 25 | 82P | MK-82 Pointed Nose Without Thermal Protection |
| 26 | 82BT | MK-82 Blunt Nose, Thermally Protected |
| 27 | 82PT | MK-82 Pointed Nose, Thermally Protected |
| 28 | 82X | MK-82 Snakeye With In-Flight-Select Retarded/Unretarded Fin Without Thermal Protection |
| 29 | 82XT | MK-82 Snakeye With In-Flight-Select Retarded/Unretarded Fin, Thermally Protected |
| 30 | 82YT | MK-82 High Drag (BSU-86) With/Without Thermal Protection |
| 31 |  82SB | MK-82 BSU-33 Fin, Blunt Nose, Thermally Protected |
| |  | Spare |
| 32 |  82SP | MK-82 BSU-33 Fin, Pointed Nose, Thermally Protected |
| |  | |
| 33 | 82LG | MK-82 Laser Guided Bomb, With/Without Thermal Protection |
| 34 | 60 | MK-60 Captor Mine (2000 # Class) |
| 35 |  60-2 | MK-62 Quickstrike Mine (MK-82) Bomb MK 15 Fin) STD |
| |  | Spare |
| 36 |  62T0 | MK-62 Quickstrike Mine (MK-82 Bomb) Mod 0 (MK 15 Fin) TP |
| 37 |  62-2 | MK-62 Quickstrike Mine (MK-82 Bomb) Mod 2, 3 (MK 15 Fin) STD |
| |  | Spare |
| 38 |  62T2 | MK-62 Quickstrike Mine (MK-82 Bomb) Mode 2, 3 (MK 15 Fin) TP |
| 39 |  63F | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 0 (MAU-91A/B Fin STD (OAS-3) |
| |  | Spare |
| 40 | 63TF | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 0 (MAU-91A/B Fin) TP (OA-3) |

Figure 2. A/G Stores Symbology (Sheet 15)

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8



















































| Store Code | Weapon Display | Store Description |
|--|--|---|
| 41 |  63C | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 0 (MK 12 Tail) STD (OA-5) |
| |  | Spare |
| 42 | 63TC | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 0 (MK 12 Tail) TP (OA-5) |
| 43 |  63-2 | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 2,3 (MK 12 Tail) STD |
| |  | Spare |
| 44 | 63T2 | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 2,3 (MK 12 Tail) TP |
| 45 |  64 | MK-64 Quickstrike Mine (MK-84 Bomb) Mod 0, 2, 3 (MK 11 Tail) STD |
| |  | Spare |
| 46 | 64T | MK-64 Quickstrike Mine (MK-84 Bomb) Mod 0, 2, 3 (MK 11 Tail) TP |
| 47 | 65 | MK-65 Quickstrike Mine (2000 # Class) Mod 0, 1, 2, 3 (1 Sec. Delay) |
| 48 | N76 | MK-76 Practice Bomb (Nuclear Use) |
| 49 | N106 | MK-106 Practice Bomb (Nuclear Use) |
| 50 | N48 | BDU-48 (Bomb Dummy Unit) |
| 51 | N20 | BDU-20C/BDU-12 (Bomb Dummy Unit) |
| 52 | N36 | BDU-36C (Bomb Dummy Unit) |
| 57 | N57 | B-57/BDU-11 (Tactical Weapon/Bomb Dummy Unit) |
| 58 | N61 | B-61, MOD 0, 1, 2, or 5 (Tactical Weapon) |
| 59 | S3 | AGM-45 SHRIKE (Weapon display is dependent on nose and tail fuze codes entered into the Armament Computer CP-1342/AYQ-9(V) weapon insertion panel.) |
| | S3A | (A1-F18AC-740-500, WP00900, Table 12) |
| | S4 | |
| | S6 | |
| | S7 | |
| | S9 | |
| | S10 | |
| | S3E | |
| | S3AE | |
| | S4E | |
| | S6E | |
| | S7E | |
| | S9E | |
| | S10E | |
| | SH | |
| 60 | SU S | SUU-5003B/A Training Bomb and Rocket Dispenser Rocket Switch in Single and BDU-5002/B and/or BDU-5003/B |
| 61 | SU R | SUU-5003B/A Training Bomb and Rocket Dispenser Rocket Switch in Ripple and BDU-5002/B and/or BDU-5003/B |
| 62 | HP | AGM-84C/D Harpoon |
| 63 | THP | AGM-84C/D Harpoon (Training) |
| 64 | HARM | AGM-88 HARM (Air to Ground) |
| 65 | MAV | AGM-65E Maverick (Air to Ground) |
| 67  | SLAM | AGM-84E |
| 68 | WE | Walleye I Weapon (Air to Ground) |
| 69 | WEDL | Walleye I Extended Range/Data Link (ER/DL) (Air to Ground) |
| 70  | TSLM | ATM-84E Training SLAM |
| 71 |  DLP | Guided Weapon Control - Monitor Set AN/AWW-9 (Walleye Data Link Pod) |
| |  WEPD | |
| 72  | 61S | LAU-61 A/A Rocket Launcher (2.75 in. Rockets) With Launcher Switch In Singles Setting |



Figure 2. A/G Stores Symbology (Sheet 16)



Table 1. Store Codes and Weapon Displays for Stations 2 thru 8



| Store Code | Weapon Display | Store Description |
|--|---|---|
| 73  | 61R | LAU-61 A/A Rocket Launcher With Launcher Switch In Ripple Setting |
| 74  | 68S | LAU-68 B/A Rocket Launcher (2.75 in. Rockets) With Launcher Switch In Singles Setting |
| 75  | 68R | LAU-68 B/A Rocket Launcher With Launcher Switch In Ripple Setting |
| 76  | 10S | LAU-10D/A Rocket Launcher (5 in. Rockets) With Launcher Switch In Singles Setting |
| 77  | 10R | LAU-10D/A Rocket Launcher With Launcher Switch In Ripple Setting |
| 78  |  4  36 | MK-36 Destructor (MK-82 Bomb) STD, MK 15, Mod 4 Fin |
| |  3  36 | MK-36 Destructor (MK-82 Bomb) BSU-86 fin |
| 79  |  4  36T | MK-36 Destructor (MK-82 Bomb) TP, MK 15, Mod 4A Fin |
| |  3  36T | MK-36 Destructor (MK-82 Bomb) TP, BSU-86 fin |
| 80  | 9M | AIM-9M Sidewinder |
| 81  | 9L | AIM-9 Sidewinder Missile (Air to Air) |
| 82  | TST | AN/ASM-464 AIM-9 Missile Test Set |
| 84  | 7F | AIM-7F Sparrow |
| |  6  7H | AIM-7H Sparrow |
| |  2  7M | AIM-7M Sparrow |
| 85  | 40F | MK-40 Destructor (MK-83 Bomb) STD, MAU-91A/B Fin |
| 86  | 40TF | MK-40 Destructor (MK-83 Bomb) TP, MAU-91A/B Fin |
| 87  | 40C | MK-40 Destructor (MK-83 Bomb) STD, MK 12 Tail |
| 88  | 40TC | MK-40 Destructor (MK-83 Bomb) TP, MK 12 Tail |
| 89  | 41 | MK-41 Destructor (MK-84 Bomb) STD, MK 11, Mod 0 Tail |
| 90  | 41T | MK-41 Destructor (MK-83 Bomb) TP, MK 11, Mod 0 Tail |
| 91  | 52 | MK-52 Bottom Mine (1000 # Class) Faired |
| 92  | 55 | MK-55 Bottom Mine (2000 # Class) Faired |
| 93  | 56 | MK-56 Moored Mine (2000 # Class) Faired |
| 94  | R6 S | LAU-5003/A Rocket Launcher (19-2.75" RLU-5001/B) 6 Lb Warhead (Single) |
| 95  | R6 R | LAU-5003/A Rocket Launcher (19-2.75" RLU-5001/B) 6 Lb Warhead (Ripple) |
| 96  | R10S | LAU-5003/A Rocket Launcher (19-2.75" RLU-5001/B) 10 Lb Warhead (Single) |
| 97  | R10R | LAU-5003/A Rocket Launcher (19-2.75" RLU-5001/B) 10 Lb Warhead (Ripple) |
| 98  | 48M | BDU 48 Practice Mine |
| 99  | | Reserved (1760 Store) |
| 225  | GUN | Gun |



LEGEND

1. Weapon stations 2 and 8. Use Table 4 for weapon stations 1 and 9.

 2  Code 84 in dialed on thumbwheel but is assigned 100 by SMS.

 3  Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000).

 4  Digital Data Computer CONFIG/IDENT Number 87X (A1-F18AC-SCM-000).

 5  With Digital Data Computer CONFIG/IDENT Number 89A AND UP selection of MK-4 and Mk-66 (2.75 in) rocket motor is provided on the SMS display.



 6  With Digital Data Computer CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000).

Figure 2. A/G Stores Symbology (Sheet 17)

Table 2. Store Codes and Weapon Displays for Stations 1 and 9

| STORE CODE | DISPLAY | | (LEFT WING) STATION 1 WEAPON | (RIGHT WING) STATION 9 WEAPON |
|------------|---------|-------|------------------------------------|-------------------------------------|
| | STA 1 | STA 9 | | |
| 0 | - | - | Empty | Empty |
| 1 | 9M | 9M | AIM-9M | AIM-9M |
| 2 | 9L | 9L | AIM-9L | AIM-9L |
| 3 | 9M | 9L | AIM-9M | AIM-9L |
| 4 | 9L | 9M | AIM-9L | AIM-9M |
| 5 | TST | - | AN/ASM-464 AIM-9 Missile Test Set | Empty |
| 6 | - | TST | Empty | AN/ASM-464 AIM-9 Missile Test Set |
| 7 | D9 | D9 | Dummy AIM-9 (without ident) | Dummy AIM-9 (without ident) |
| 8 | - | - | (Not Used) | (Not Used) |
| 9 | TST | TST | END-TO-END TEST Adapter | END-TO-END TEST Adapter |

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

STORES DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|----------|
| ACPT/CANCEL (Figure 6, Index 7) | 38 |
| AGE (Figure 2, Index 6) | 17 |
| AGUN Option (Figure 1, Index 17) | 10 |
| AIM-7 Designation (Figure 4, Index 5) | 31 |
| AM TEST (Figure 1, Index 19) | 10 |
| ARM/SAFE/SIM (Figure 1, Index 4) | 8 |
| (Figure 2, Index 5) | 17 |
| (Figure 2, Index 22) | 20 |
| (Figure 5, Index 3) | 34 |
| AUTO (Figure 2, Index 52) | 26 |
| A/A Gun DSTB Mode (Figure 1, Index 13) | 10 |
| A/A Stores Symbology (Figure 1) | 5 |
| A/A Stores Target Mode Symbology (Figure 4) | 29 |
| A/C RNG (Figure 2, Index 6) | 17 |
| A/G Stores Symbology (Figure 3) | 27 |
| Boat Cue (Figure 2, Index 47) | 25 |
| CANCEL (Figure 6, Index 7) | 38 |
| CDTRQ (Figure 6, Index 6) | 38 |
| (Figure 5, Index 12) | 35 |
| CFAIL (Figure 1, Index 1) | 8 |
| DATA (Figure 1, Index 20) | 10 |
| (Figure 2, Index 40) | 24 |
| Data Freeze (SLAM) (Figure 6, Index 5) | 38 |
| Data Freeze Parameters (A/A) (Figure 1, Index 12) | 9 |
| Data Freeze Parameters (Bomb) (Figure 2, Index 39) | 23 |
| Data Freeze Parameters (Gun or Rocket) (Figure 2, Index 43) | 24 |
| DEGD (Figure 1, Index 1) | 8 |
| DRAG (Figure 2, Index 28) | 21 |
| D-L (Figure 1, Index 1) | 7 |
| EASB (Figure 2, Index 51) | 26 |
| EFUZ (Figure 2, Index 29) | 22 |
| ERASE SLAM (Figure 6, Index 8) | 38 |
| FAIL (Figure 1, Index 1) | 8 |
| FAR (Figure 5, Index 11) | 35 |
| FLT (Figure 5, Index 15) | 36 |
| FXPT (Figure 5, Index 6) | 34 |
| GUN (Figure 2, Index 9) | 18 |
| Gun Decoder Status (Figure 1, Index 22) | 10 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| Gun Fire Rate (Figure 1, Index 14) | 10 |
| Gun Rounds Remaining (Figure 1, Index 3) | 8 |
| (Figure 2, Index 4) | 17 |
| HARM Mode (Figure 2, Index 16) | 19 |
| HARM Self-Protect Pullback Indication (Figure 1, Index 6) | 9 |
| (Figure 2, Index 11) | 18 |
| Harpoon Data Freeze Parameters (Figure 5, Index 18) | 36 |
| Harpoon Error Cue (Figure 5, Index 4) | 34 |
| Harpoon Program Data (Figure 5, Index 17) | 36 |
| Harpoon Stores Format (Figure 5) | 32 |
| HELO (Figure 4, Index 4) | 31 |
| HOJ (Figure 4, Index 4) | 31 |
| HPTP (Figure 5, Index 5) | 34 |
| HRM OVRD (Figure 1, Index 11) | 9 |
| (Figure 2, Index 17) | 19 |
| HRM RNG (Figure 2, Index 6) | 17 |
| HT (Figure 2, Index 41) | 24 |
| HT Setting (Figure 2, Index 42) | 24 |
| HUNG (Figure 1, Index 1) | 7 |
| H+LKD (Figure 1, Index 1) | 7 |
| H+TSN (Figure 1, Index 1) | 7 |
| H+ULK (Figure 1, Index 1) | 7 |
| Inhibit Envelope Indication (Figure 2, Index 46) | 25 |
| IN RNG (Figure 2, Index 6) | 17 |
| (Figure 2, Index 55) | 26 |
| Introduction | 4 |
| IN ZONE (Figure 2, Index 55) | 26 |
| (Figure 5, Index 4) | 17 |
| (Figure 6, Index 2) | 38 |
| Land Threat List (Figure 2, Index 49) | 25 |
| LEFT (Figure 5, Index 11) | 35 |
| LKD (Figure 1, Index 1) | 7 |
| LOAD (Figure 2, Index 10) | 18 |
| LOFT (Figure 4, Index 4) | 31 |
| LOS (Figure 2, Index 34) | 22 |
| LOS Cue (Figure 6, Index 1) | 38 |
| LRG (Figure 5, Index 12) | 35 |
| L SEL (Figure 1, Index 1) | 7 |
| MAN (Figure 2, Index 52) | 26 |
| MED (Figure 5, Index 12) | 35 |
| MFUZ (Figure 2, Index 30) | 22 |
| MODE (Figure 2, Index 31) | 22 |
| (Figure 5, Index 16) | 36 |
| M4/M66 Box (Figure 2, Index 32) | 22 |
| M50 (Figure 1, Index 15) | 10 |
| M66 (Figure 2, Index 32) | 22 |
| NEAR (Figure 5, Index 11) | 35 |
| NORM (Figure 5, Index 11) | 35 |
| PGU (Figure 1, Index 15) | 10 |
| (Figure 2, Index 44) | 25 |
| Pre and Post Launch Time of Flight (Figure 2, Index 7) | 18 |
| Priority Station Selected (Figure 2, Index 26) | 21 |
| PROG (Figure 2, Index 14) | 19 |
| PROG Number (Figure 2, Index 12) | 19 |
| PROG Select (Figure 2, Index 21) | 20 |
| Program Status (Figure 2, Index 19) | 20 |
| RACK (Figure 2, Index 23) | 21 |
| Rack ID Character (Diamond) (Figure 2, Index 23) | 21 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| RDY (Figure 1, Index 1) | 8 |
| (Figure 2, Index 2) | 17 |
| (Figure 5, Index 1) | 34 |
| RDY (Gun) (Figure 2, Index 8) | 18 |
| RET (Figure 2, Index 28) | 21 |
| RIGHT (Figure 5, Index 11) | 35 |
| RMAX (Figure 2, Index 43) | 24 |
| RND (Figure 1, Index 15) | 10 |
| Rocket Delivery/Fire Sequence Options (Figure 2, Index 27) | 21 |
| R SEL (Figure 1, Index 1) | 7 |
| SAF DSBL (Figure 2, Index 36) | 23 |
| SDEGD (Figure 1, Index 1) | 8 |
| Sea Threat List (Figure 2, Index 48) | 25 |
| SEEK (Figure 5, Index 13) | 35 |
| SEL (Figure 1, Index 1) | 7 |
| SEL D (Figure 1, Index 1) | 7 |
| SH Legend (Figure 2, Index 53) | 26 |
| SIM (Figure 1, Index 4) | 8 |
| (Figure 1, Index 10) | 9 |
| (Figure 5, Index 10) | 35 |
| (Figure 6, Index 4) | 38 |
| SAFE (Figure 1, Index 4) | 8 |
| (Figure 2, Index 5) | 17 |
| SLAM Stores Format (Figure 6) | 37 |
| SML (Figure 5, Index 12) | 35 |
| SP TEST (Figure 1, Index 8) | 9 |
| Special Launch Mode Option (Figure 4, Index 3) | 31 |
| Special Launch Mode Sublevel (Figure 4, Index 4) | 31 |
| Stations 1 thru 9 Status Characters (Figure 1, Index 1) | 7 |
| Stations 1 thru 9 Store Characters (Figure 1, Index 7) | 9 |
| (Figure 2, Index 25) | 21 |
| Stations 1, 2, 8, and 9 Sidewinder Missile Symbol (Figure 1, Index 16) | 10 |
| Stations 2, 3, 4, 6, 7, and 8 Medium Symbol (Figure 1, Index 2) | 8 |
| Stations 2, 4, 6, and 8 Sparrow Untuned X (Figure 1, Index 5) | 9 |
| Station LASER Code (Figure 3, Index 3) | 28 |
| Station LASER Code Box (Figure 3, Index 3) | 28 |
| STBY (Figure 1, Index 1) | 7 |
| STEP (Figure 1 Index 8) | 9 |
| (Figure 2, Index 13) | 19 |
| (Figure 3, Index 1) | 28 |
| (Figure 5, Index 7) | 35 |
| (Figure 6, Index 3) | 38 |
| Store Characters (Figure 2, Index 1) | 17 |
| SXXXX (Figure 2, Index 50) | 26 |
| S MODE (Figure 1, Index 21) | 10 |
| TAIL (Figure 2, Index 30) | 22 |
| Target Size (Figure 4, Index 2) | 31 |
| Target Size Option (Figure 4, Index 1) | 31 |
| TERM (Figure 5, Index 14) | 36 |
| TEST (Figure 1, Index 1) | 7 |
| Time Delay (Figure 2, Index 54) | 26 |
| TIMING (Figure 2, Index 37) | 23 |
| (Figure 5, Index 2) | 34 |
| (Figure 6, Index 9) | 38 |
| TM (Figure 1, Index 18) | 10 |
| TOM (Figure 2, Index 38) | 23 |
| TONE (Figure 2, Index 40A) | 24 |
| TSN (Figure 1, Index 1) | 8 |

***Alphabetical Index (Continued)**

| Subject | Page No. |
|--|-----------------|
| UFC (Figure 2, Index 15) | 19 |
| (Figure 3, Index 2) | 28 |
| (Figure 5, Index 8) | 35 |
| ULK (Figure 1, Index 1) | 7 |
| UNCPL (Figure 1, Index 1) | 8 |
| UNLK (Figure 2, Index 18) | 20 |
| WDEGD (Figure 1, Index 1) | 8 |
| WFAIL (Figure 1, Index 1) | 8 |
| Weapon Count (Figure 1, Index 9) | 9 |
| (Figure 2, Index 24) | 21 |
| Wind (Figure 2, Index 18) | 20 |
| (Figure 5, Index 9) | 35 |
| Wingform (Figure 2, Index 3) | 17 |
| ## TTMR (Figure 2, Index 6) | 17 |
| (Figure 2, Index 55) | 26 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------------|-------------|--|-------------------------|----------------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to Stores displays. The illustrations are not meant to

represent typical displays, but to provide general appearance and positioning of the elements which make up Stores displays. The descriptions may contain schematic references which show the development of the display elements.

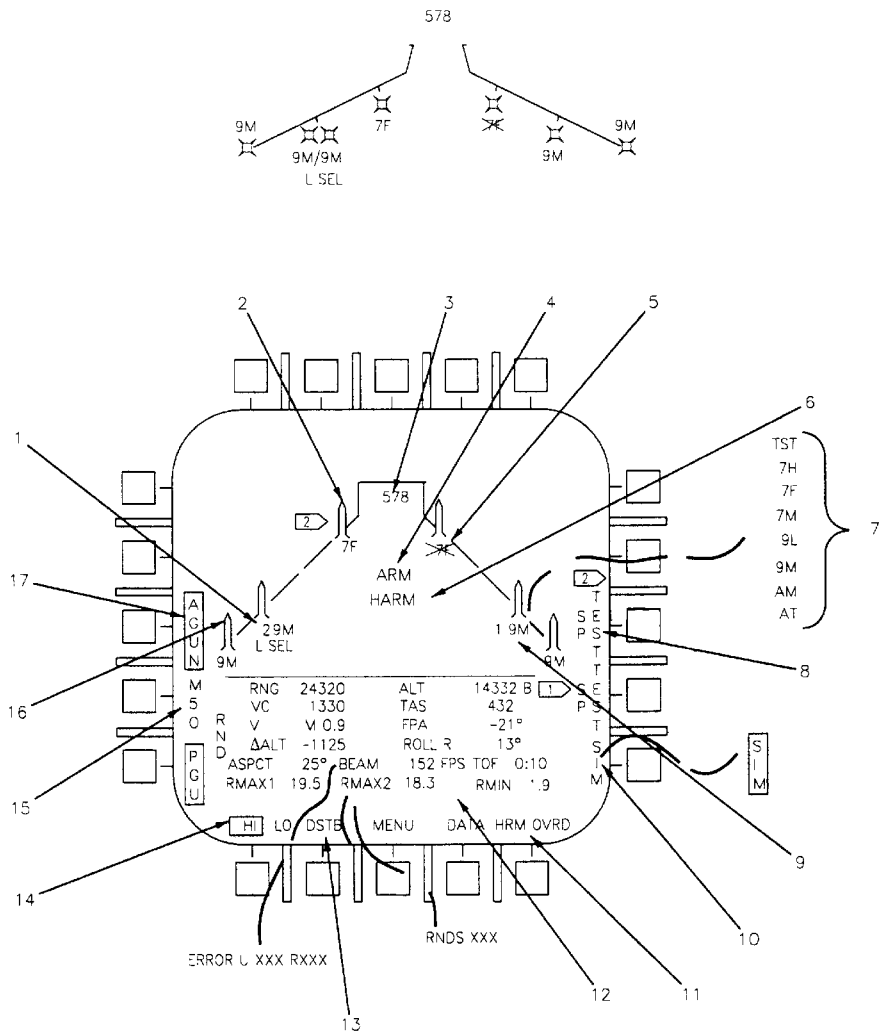


Figure 1. A/A Stores Symbology (Sheet 1)

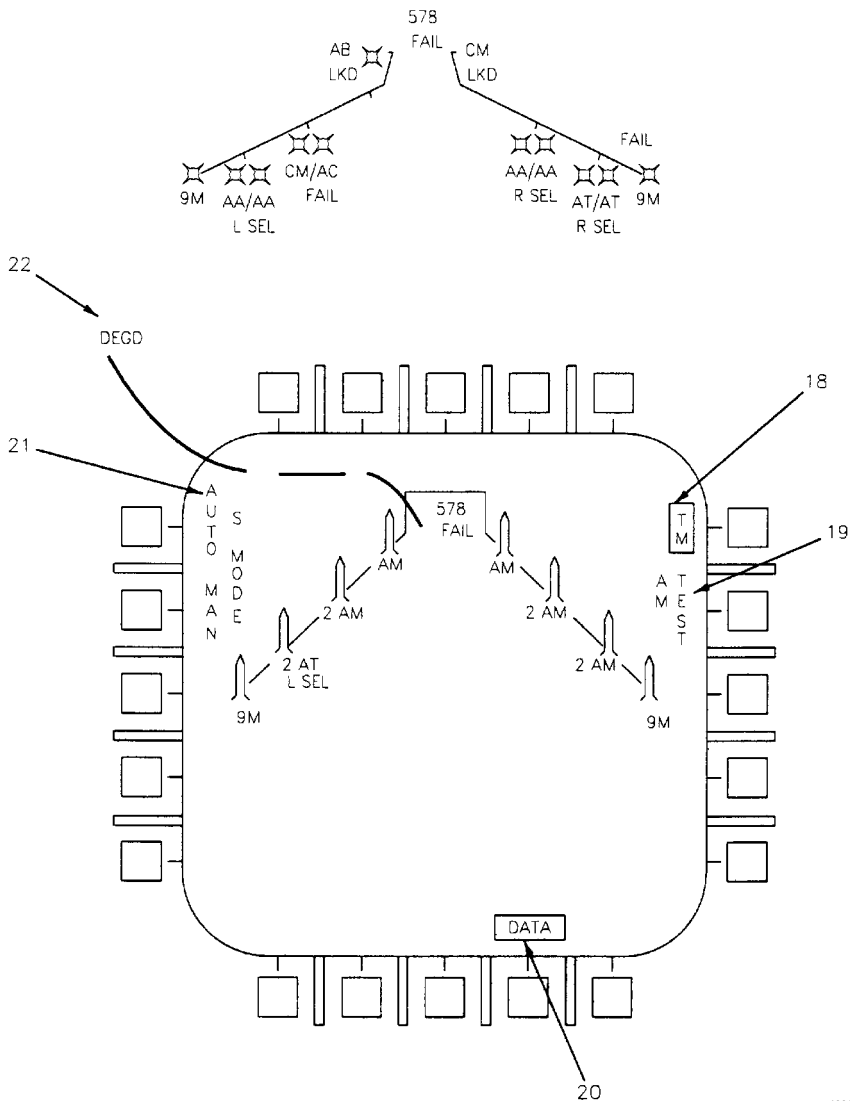


Figure 1. A/A Stores Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-------------------------------------|--|
| 1 | Stations 1 Thru 9 Status Characters | Indicates status of the priority store. Displayed in A/A and A/G modes. |
| | L SEL R SEL F SEL | Indicates priority station of selected weapon and the weapon station selected is ready for launch. L SEL or R SEL displayed when one of dual AIM-9 missiles on station 2 or 8 is selected and is priority weapon or when MARAUD missile is selected on stations 2, 3, 7 or 8 and is priority weapon. F SEL displayed when AIM-7, or MARAUD loaded on a fuselage station (station 4 or 6) and weapon status is standby or ready. |
| | SEL-D | Indicates a selected A/A missile status is degraded. |
| | HUNG | Displayed after launch or jettison commanded but missile does not launch from aircraft. When HUNG is displayed, weapon station is removed from launch priority sequence. Not displayed for station 2 or 8 dual AIM-9 unless both missiles on the station are hung or only missile remaining on station is hung. When Harpoon weapon is hung, station will step to next station. Auxiliary release is required for weapon release. |
| | H+TSN | Displayed when weapon is hung and Aircraft Bomb Ejector Rack BRU-32/A is in transition. |
| | H+LKD | For A/G weapons, displayed when weapon is hung and Aircraft Bomb Ejector Rack BRU-32/A is locked. For A/A weapons, displayed when weapon hung and launcher is locked. |
| | H+ULK | Displayed when weapon is hung and Aircraft Bomb Ejector Rack BRU-32/A is unlocked. |
| | D/L | Displayed when the missile fails data link portion of AM Test (index 15) and no missile is selected. |
| | TEST | Displayed when test is in progress on respective station. |
| | LKD | Displayed for stations 2 through 8 as a function of type of weapon/store aboard and landing gear up and locked. Indicates launcher/rack is locked. Displayed at all times for station where a fuel tank or Walleye Data Link Pod is loaded (when locked status is received from SMS). Not displayed when HUNG or FAIL status exist, when Maverick, HARM, AIM-9, Shrike, or MER loaded aboard station, or when store code is 82 (tester). |
| | ULK | Displayed for stations 2 through 8 as a function of type of weapon/store aboard and landing gear not up and locked. Indicates launcher/rack is not locked. Displayed when fuel tank or Walleye Data Link Pod is loaded and unlocked status is received from SMS. Not displayed when HUNG or FAIL status exist, when Maverick, HARM, AIM-9, Shrike, or MER loaded aboard station, or when store code is 82 (tester). |

Figure 1. A/A Stores Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| | FAIL | Displayed when stores management system (SMS) indicates no communication with weapon station decoder, a failure occurs preventing missile launch, weapon release, or gun firing or when stations 1, 2, 4, 6, 8, or 9 status is STBY during end-to-end test. When FLIR (station 4) or LDT/CAM is aboard and communicating, FAIL is not displayed. |
| | DEGD | Displayed when SMS indicates both a weapon degrade and a weapon station decoder degrade. |
| | SDEGD | Displayed when SMS indicates a weapon station decoder degrade. |
| | WDEGD | Displayed when SMS indicates a non-AMRAAM, unselected, weapon degrade. |
| | TSN | Displayed for nuclear weapons or non-droppable stores (DL-9, DL-13, FUEL, WEDL) when locked or unlocked status does not exist from SMS. Status is in transition. |
| | RDY | Displayed for HARM, Walleye, and Maverick when specific conditions for each weapon exist or when stations 1, 2, 4, 6, 8, or 9 status is STBY during end-to-end test. |
| | STBY | Displayed for HARM weapon when power on weapon but is not priority weapon or when stations 1, 2, 4, 6, 8, or 9 status is STBY during end-to-end test. |
| | UNCPL | Displayed when BRU-32 failed to lock or unlock when commanded. Displayed when RACK test is complete (for testing refer to A1-F18AC-740-200, WP033 03). |
| | CFAIL | Displayed when station BRU-33 failed to lock in 10 seconds. Displayed when RACK test is complete (for testing refer to A1-F18AC-740-200, WP033 33). |
| | WFAIL | Displayed when SMS indicates a weapon failed. (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02). |
| 2 | Stations 2, 3, 4, 6, 7, 8, Missile Symbol | <p>Planform missile symbol displayed when mission computer system (MC) receives sparrow store code from SMS. Not displayed when store code is 82 (tester) (AIM-7 Sparrow Avionics Interface Schematic, A1-F18AC-740-500, WP045 00).</p> <p>cruciform missile symbol displayed when mission computer system (MC) receives missile store code from SMS. Not displayed when store code is 82 (tester).</p> |
| 3 | Gun Rounds Remaining | Gun rounds (± 10) displayed when available. If no rounds remain, XXX is displayed. (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 4 | ARM/SAFE/SIM | ARM and SAFE are displayed when MASTER switch on Master Arm Control Panel Assembly is set to ARM or SAFE respectively and SIM mode is not selected. SIM is displayed when SIM mode is selected and boxed (Master Arm Schematic, A1-F18AC-740-500, WP017 00). |

Figure 1. A/A Stores Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 5 | Stations 2, 4, 6, or 8 Sparrow Untuned X | X displayed through sparrow symbol when SMS indicates sparrow missile is not tuned (AIM-7 Sparrow Avionics Interface Schematic, A1-F18AC-740-500, WP045 00). |
| 6 | HARM Self-Protect Pullback Indication | Displayed when a pullback threat detected while HARM missiles are loaded on aircraft. HARM displayed if a missile is ready for launch. HARM displayed superimposed by a large X if missile is not ready for launch. PLBK is displayed if HARM OVRD option selected (AGM-88 HARM Pre-briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00). |
| 7 | Stations 1 Thru 9 Store Characters | Type of store loaded on each station (TST, 7H, 7M, 9L, 9M, AM, AT, AA, AB, AC, AT, BT, CT, ??) determines weapon symbol to be displayed except during SIM mode when AIM-7 station will display 7M regardless of what is loaded. The MC receives a store code for each store loaded from the SMS per tables 1 or 2 (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02). |
| 8 | SP TEST | Displayed in NAV and A/A master modes when radar system and stores management system provide the mission computer (MC) with available for tuning discretetes. TEST is boxed when SP TEST (missile tune) has been selected either by the MC or the pilot. Pushbutton manually enables AIM-7 tuning when pressed. Test can be interrupted by a HARM Self-Protect condition or when any A/A weapon is selected (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP045 00). |
| | STEP | Enables weapon priority to be stepped for AMRAAM and DIDP weapon selection (AIM-120 AMRAAM Avionic Interface Schematic, A1-F18AC-740-500, WP042 00). |
| 9 | Weapon Count | Indicates total number of weapons loaded aboard each station for stations 2, 3, 5, 7, and/or 8 (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02). |
| 10 | SIM | Displayed when MASTER switch on Master Arm Control Panel Assembly is set to SAFE position. Legend is boxed when pushbutton is pressed and SIM mode enable is received by mission computer system from SMS. SIM mode inhibits master arm. If MASTER switch is set to ARM before SIM mode is deselected, master arm logic will remain safe until MASTER switch is cycled (Simulation Mode Select Schematic, A1-F18AC-740-500, WP022 00). |
| 11 | HRM OVRD | Displayed when HARM missile is loaded aboard aircraft. Selection of pushbutton option overrides HARM Self-Protect Pullback mode and allows selected A/A weapon to remain in priority for launch or firing. Option boxed when selected (AGM-88 HARM Pre-briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 12 | Data Freeze Parameters A/A | Displayed when DATA freeze pushbutton pressed, radar is in Single Target Track (STT), and Sparrow, AMRAAM, Sidewinder, or A/A gun is most recent weapon released/fired (Data Freeze Display Schematic, A1-F18AC-740-500, WP070 02). |

Figure 1. A/A Stores Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 13 | A/A Gun DSTB Mode | Pushbutton switch selects A/A gun disturbed (DSTB) mode. When DSTB is selected, the DSTB legend is boxed. When pushbutton switch is not selected, gun is in primary operating mode (director) (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 14 | Gun Fire Rate | Pushbutton switch selects gun fire rate. Displayed when gun is available. High rate (HI) is initialized on power up. Pressing pushbutton switch selects the alternate gun fire rate (LO). Gun fire rate legend is boxed when selected (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 15 | M50/PGU | Pushbuttons enable selection of gun round type. Mutually exclusive pushbuttons. Legend selected is boxed. System is initialized with PGU selected at power up. (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 16 | Stations 1, 2, 8, 9 Sidewinder Missile Symbol | Displayed when AIM-9 sidewinder missile loaded on station. When missiles are released and weapon count reaches zero, missile symbol is removed. Not displayed when store code is 82 (tester) (AIM-9 Sidewinder Avionic Interface Schematic, A1-F18AC-740-500, WP048 02). |
| 17 | AGUN Option | Displayed to enable/disable "smart trigger" gun option (auto gun). Legend is boxed when AGUN is selected and remains selected when master mode or weapon is changed (Air to Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |
| 18 | TM Option | TM option provided when any AMRAAM is selected and an AMRAAM with telemetry is loaded. Pressing TM pushbutton applies/removes telemetry power and boxes/un-boxes legend. TM is initialized off (unboxed) (AIM-120 AMRAAM Avionic Interface Schematic, A1-F18AC-740-500, WP042 00). |
| 19 | AM TEST | Displayed in NAV and A/A master modes when radar system and stores management system (SMS) are available for test and SMS provides the MC with a test request. TEST is boxed when AM TEST pushbutton is pressed. When an AMRAAM station has a data link failed missile AM TEST should be initiated. Test can be interrupted by a HARM self-protect condition or when any A/A weapon is selected (AIM-120 AMRAAM Avionic Interface Schematic, A1-F18AC-740-500, WP042 00). |
| 20 | DATA | Displayed to allow selection of data freeze parameters (Data Freeze Display Schematic, A1-F18AC-740-500, WP076 02). |
| 21 | S MODE | Displayed in A/A master mode or NAV master mode and A/G weapon not selected. S MODE is initialized to AUTO at power up. Selected mode (MAN or AUTO) will remain displayed for all A/A weapons selected (AIM-120 AMRAAM Avionic Interface Schematic, A1-F18AC-740-500, WP042 00). |
| 22 | Gun Decoder Status | Display indicates FAIL or DEGD status of the Gun Command Signal Encoder-Decoder KY-855/AYQ-9(V) (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00). |

Figure 1. A/A Stores Symbology (Sheet 6)

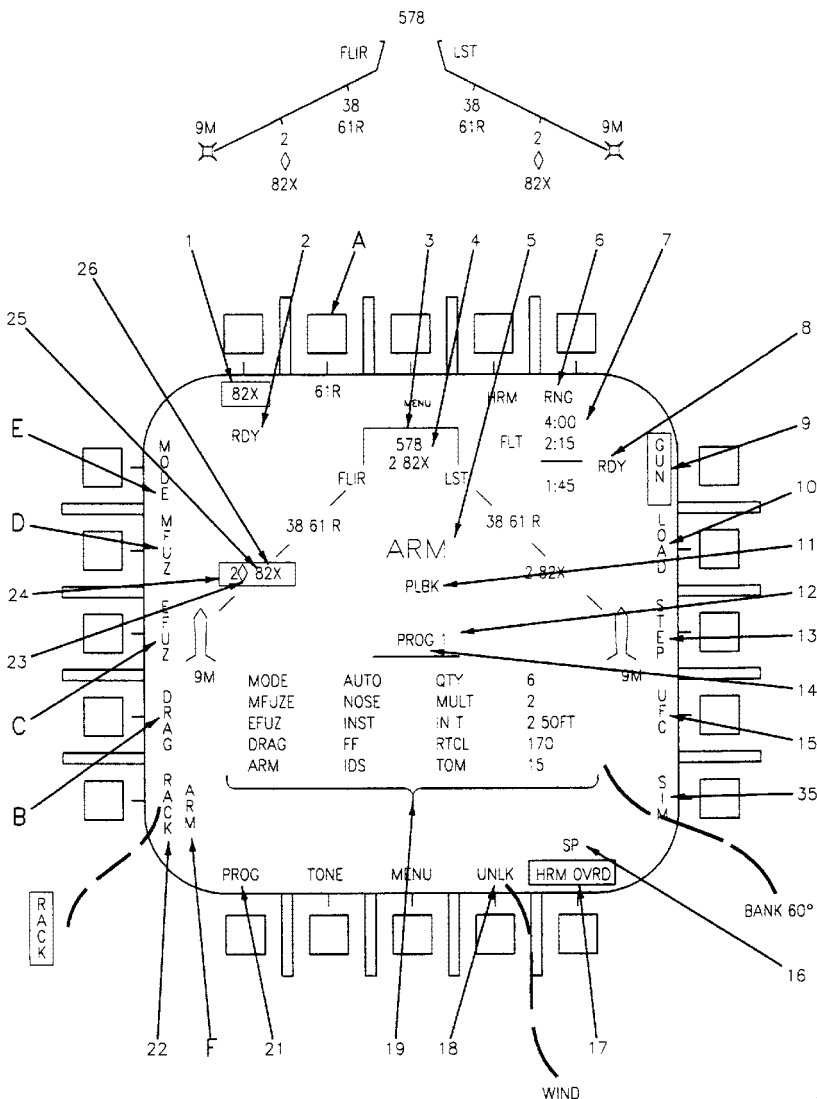


Figure 2. A/G Stores Symboly (Sheet 1)

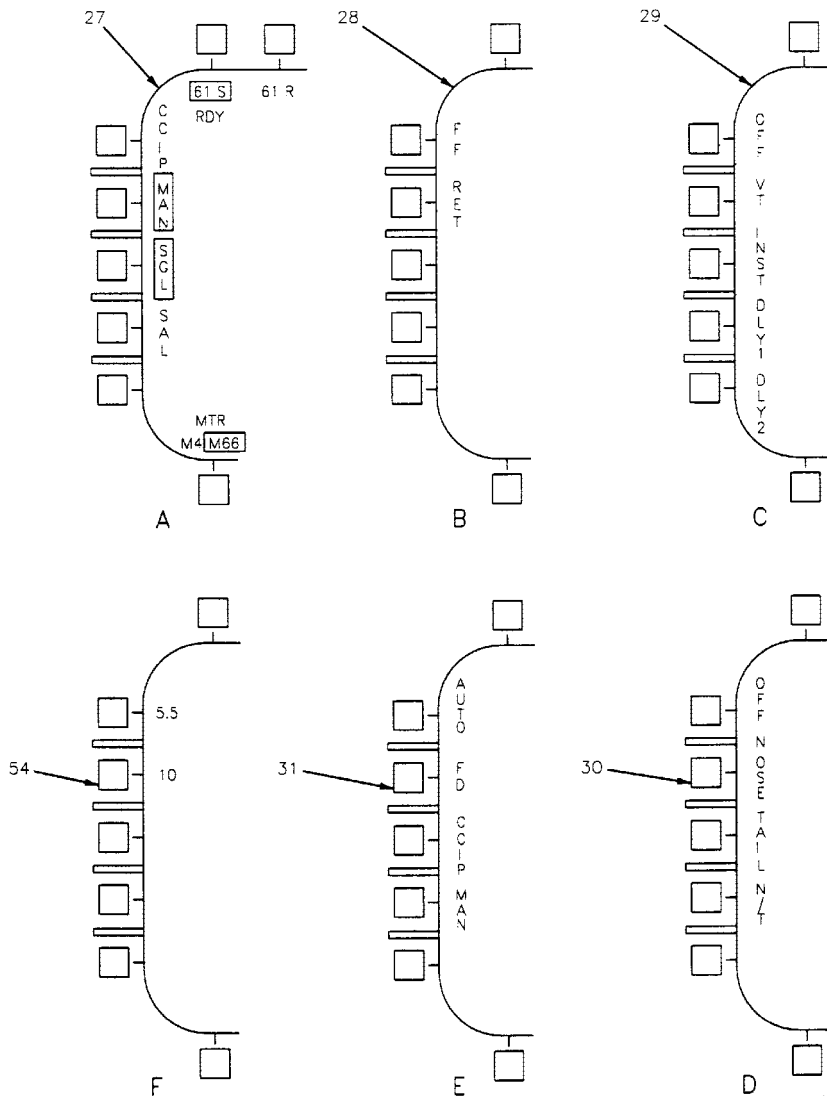


Figure 2. A/G Stores Symbology (Sheet 2)

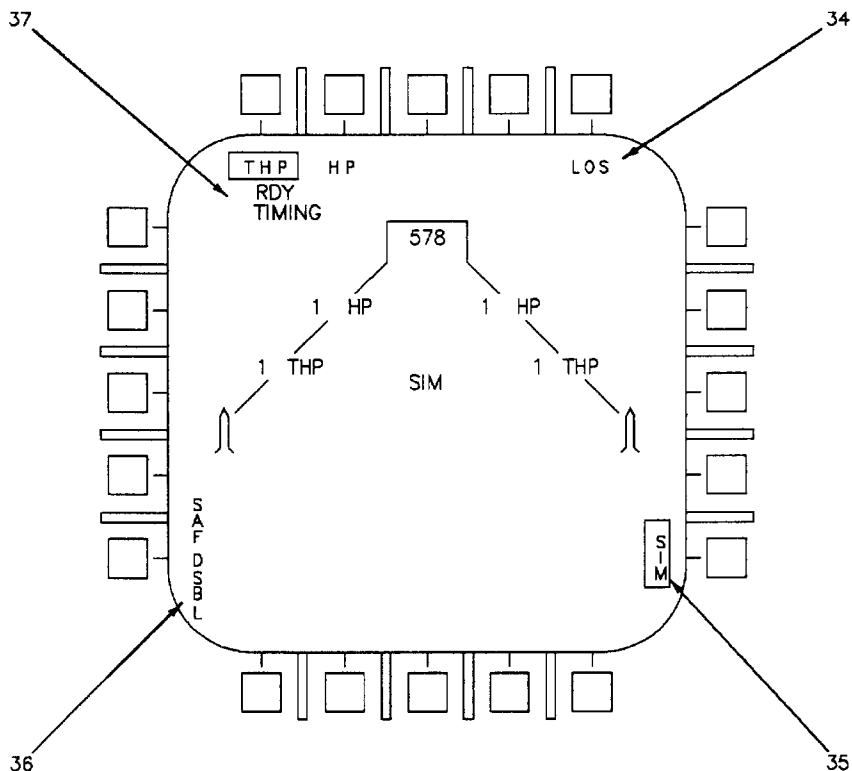


Figure 2. A/G Stores Symbology (Sheet 3)

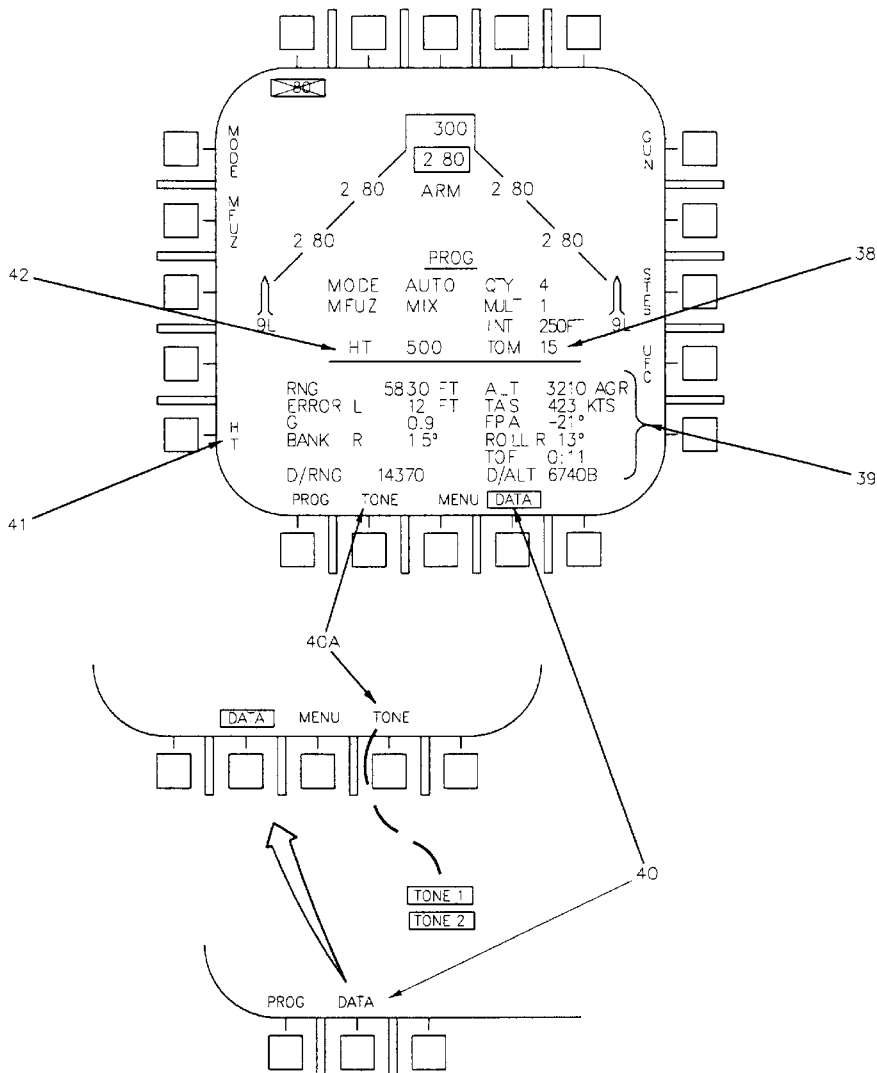


Figure 2. A/G Stores Symbology (Sheet 4)

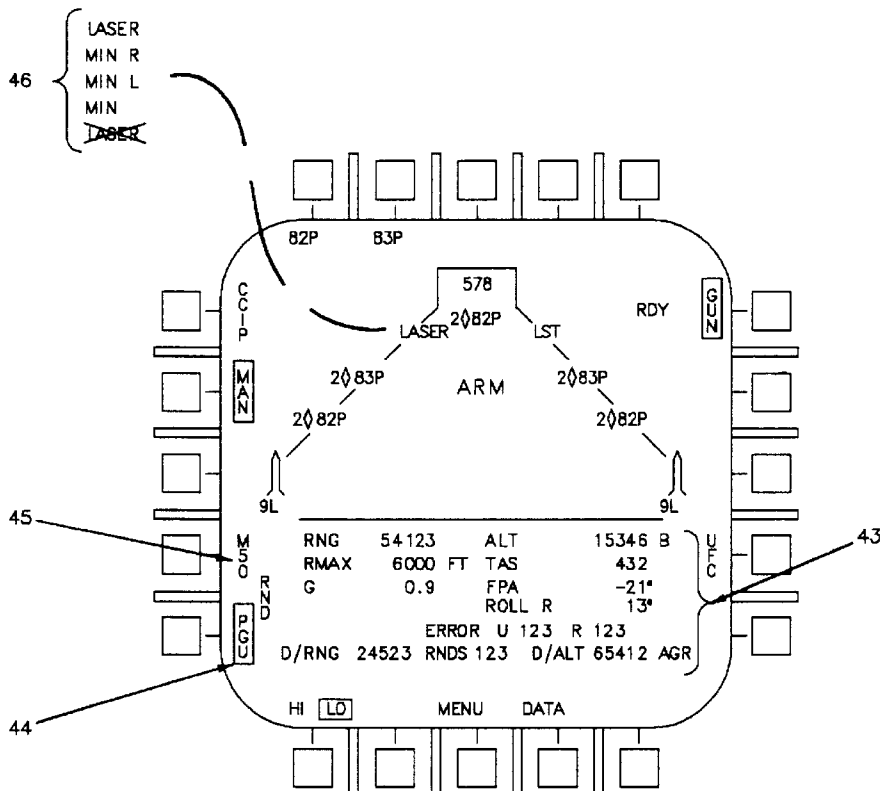


Figure 2. A/G Stores Symbology (Sheet 5)

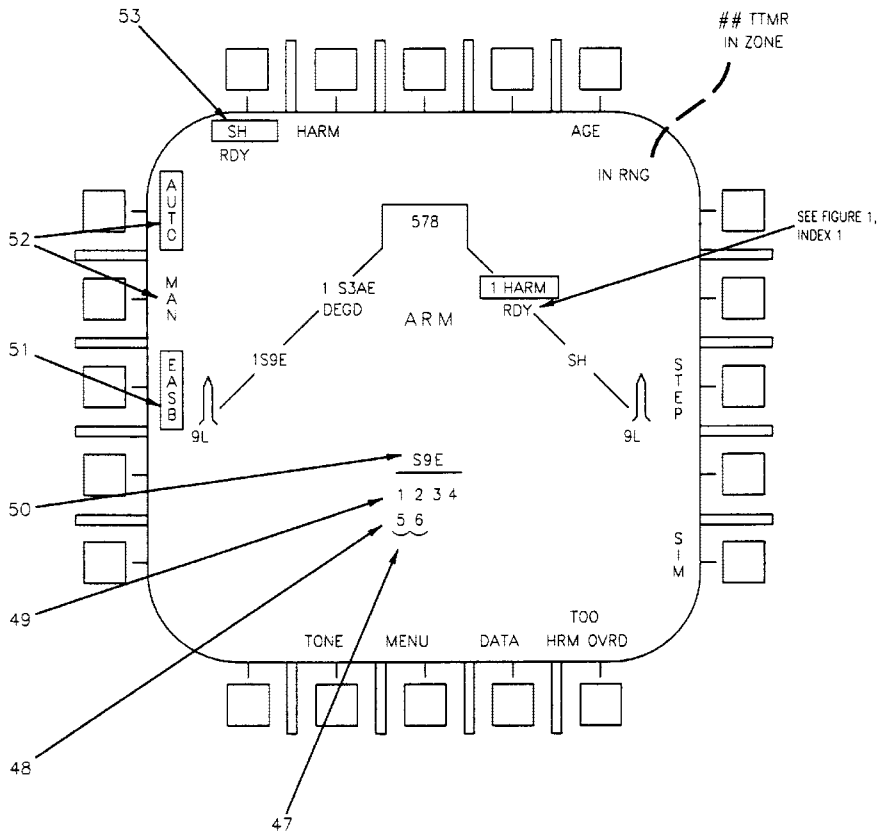


Figure 2. A/G Stores Symbology (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | Stores Characters | The type of store loaded on each station determines what label is displayed for push-buttons 6 thru 10. The mission computer (MC) receives from the stores management system (SMS) a store code for stores loaded on each station. For each different type of weapon loaded, a pushbutton is labeled per table 1. Pushbutton action causes MC to output selected A/G store to SMS and legend is boxed. SW, TST, SP, AM, or AT, AA, AB, AC, AT, BT, CT, or ??, and GUN are not displayed at these pushbuttons (Weapon Select Schematic, A1-F18AC-740-500, WP016 00). |
| 2 | RDY | Indicates that all preparation for selected weapon type has been completed. Prior to RDY display, selected weapon pushbutton label has large X superimposed (Weapon Select Schematic, A1-F18C-740-500, WP016 00). |
| 3 | Wingform | Wingform indicates type and number of all stores loaded on the aircraft, including: <ol style="list-style-type: none"> 1. Sidewinder and Sparrow or AMRAAM missile shapes. cruciform missile shapes. 2. Store characters for the stores loaded on stations 2, 3, 5, 7, and 8 (table 1). 3. FLIR and LST characters for stations 4 and 6, respectively, when these pods are loaded and communicating on the multiplex bus. 4. Station status, as appropriate, at stations 2, 3, 5, 7, and 8 (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02). |
| 4 | Gun Rounds Remaining | Gun rounds remaining (± 10) displayed when available. If no rounds remain, XXX is displayed (Air To Ground Gun Avionics Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 5 | ARM/SAFE/SIM | ARM and SAFE are displayed when MASTER switch on Master Arm Control Panel Assembly is set to ARM or SAFE respectively and SIM mode is not selected. SIM is displayed when SIM mode is selected and boxed (Master Arm Schematic, A1-F18AC-740-500, WP 017 00) (Simulation Mode Select Schematic, A1-F18AC-740-500, WP022 00). |
| 6 | IN RNG | IN RNG displayed when Walleye or HARM weapon in range. |
| | ## TTMR | TTMR with up to 2 time digits is displayed to indicate time to maximum range. Display changes to IN RNG when target is within maximum range. |
| | A/C RNG | A/C RNG displayed when mission computer system has computed a HARM to be in range if the aircraft executes a pullup. |
| | HRM RNG | HRM RNG is displayed if the HARM is in range to reach the target by executing a pullup after launch. |

Figure 2. A/G Stores Symbology (Sheet 7)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| | AGE | <p>AGE (angle gate enable) cue displayed if compatible with the Shrike seeker head and selected with the cage/uncage switch. Selection of AGE narrows the Shrike field of view</p> <p>(AGM-88 HARM Pre-briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00)</p> <p>(AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00)</p> <p>(AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP052 02).</p> |
| 7 | Pre- and Post Launch Time of Flight | <p>Pre-launch time of flight is displayed when IN RNG cue is displayed. When a HARM is launched, the post launch time of flight in minutes and seconds and FLT legend is displayed under the pre launch time of flight. After a HARM is launched, the post launch time of flight and FLT remains until it counts to zero. When both pre and post launch time of flight are displayed, a delta time is also displayed.</p> <p>(AGM-88 HARM Pre-briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00).</p> |
| 8 | RDY (Gun) | <p>A/G gun ready indication when gun enabled and ready</p> <p>(Air To Ground Gun Avionics Interface Schematic, A1-F18AC-750-500, WP006 00).</p> |
| 9 | GUN | <p>Pushbutton switch selects A/G gun as either the primary weapon or enables gun firing when a bomb or rocket type is selected. Gun firing cannot be enabled when a nuclear weapon is selected. Legend is boxed when pushbutton switch is selected. Legend is superimposed by X when gun not ready</p> <p>(Air To Ground Gun Avionics Interface Schematic, A1-F18AC-750-500, WP006 00).</p> |
| 10 | LOAD | <p>The LOAD pushbutton label is displayed when a MER is aboard. When MER ident exists, a store count of 6 is sent from the SMS to the MC for display. The LOAD pushbutton is pressed to decrement the MER load count by one each time pressed. When MER loaded on more than one weapon station, STEP option pushbutton is pressed to allow use of LOAD pushbutton on another weapon station</p> <p>(Stores Inventory Schematic, A1-F18AC-740-500, WP015 02).</p> |
| 11 | HARM Self-Protect Pull-back Indication | <p>HARM is displayed if HARM aboard, self-protect pullback exists, and HARM ready for launch. If HARM not ready for launch, HARM is displayed, superimposed by a large X. If HARM override is selected, PLBK is displayed</p> <p>(AGM-88 HARM Pre-briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00).</p> |

Figure 2. A/G Stores Symbology (Sheet 8)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 12 | PROG Number | Indicates program number received by MC from the SMS. Program number changed when PROG pushbutton is pressed. PROG 5 is designated as manual mode program only (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 13 | STEP | STEP pushbutton option provides for selection of the next highest priority station for the selected weapon type if that weapon type is loaded aboard more than one weapon station (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02). |
| 14 | PROG | The SMS stores the delivery parameters for five separate programs. When selections of all applicable options are not complete, X is superimposed over PROG (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 15 | UFC | Quantity, interval, and multiple values are programmed using the UFC pushbutton option. When pushbutton is pressed, the program options on the right side of the program data display are entered by way of the Electronic Equipment Control C-10380/ASQ (equipment control). Data entered is sent to the SMS for storage in the selected program. When guns or rockets are selected, the UFC option is available in MAN (manual) mode only for RTCL (reticle) data entry (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 16 | HARM Mode | Indicates the HARM mode when the Command Launch Computer CP-1001/AWG (CLC) is on (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP057 02) or (AGM-88 HARM Self Protect (SP) Mode Interface Schematic, A1-F18AC-740-500, WP058 00) or (AGM 88 HARM Pre-briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 00). |
| 17 | HRM OVRD | Displayed when HARM store exists from SMS. When selected, provides for override of HARM Self-Protect Pullback mode to allow for continued delivery of selected weapon without interruption. Pushbutton label is boxed when selected (AGM-88 HARM Self Protect (SP) Mode Interface Schematic, A1-F18AC-740-500, WP058 00). |

Figure 2. A/G Stores Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 18 | UNLK | This option is provided whenever an Aircraft Bomb Ejector Rack (BRU-32/A) fails to unlock when commanded by SMS. Selection of the UNLK option causes the SMS to activate the override solenoid in all BRU-32/A racks that failed to unlock. The UNLK option is not displayed if all BRU-32/A racks indicate unlocked status. (Launcher/Rack Lock/Unlock Schematic, A1-F18AC-740-500, WP020 02). |
| 18 | WIND | The WIND option is available to program wind data which is used for ballistic weapon delivery accuracy improvement. Target area wind data can be entered via the MU or via the displays into the wind table (Memory Unit Functional, A1-F18AC-580-500, WP009 00). |
| 19 | Program Status | Lists the parameter options in the selected program and indicates program readiness. When fault exists, option status is blank. When option selected by way of equipment control is not compatible, override value provided by SMS is displayed with an asterisk. Display available for conventional weapons only (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 20 | Deleted | Moved to index 40A. |
| 21 | PROG select | Pressing PROG pushbutton selects any of five conventional bomb programs (programs 1, 2, 3, 4, or 5). Program 5 is always a manual mode program. When A/G gun is selected, gun fire rate options are displayed at this pushbutton (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 22 | RACK | <p>Displayed when A/G stores display is selected and</p> <ol style="list-style-type: none"> 1. Weight on wheels 2. NAV master mode 3. SMS bit complete 4. No weapon selected 5. Store on any pylon station 6. Rack test available from SMS. 7. GUN is not preselected <p>When RACK pushbutton is pressed the SMS is commanded to perform rack test. TEST is displayed at weapon status, and RACK pushbutton is boxed while testing is in progress (For testing refer to (A1-F18AC-740-200, WP033 03) for troubleshooting refer to (A1-F18AC-740-200, WP033 04).</p> |

Figure 2. A/G Stores Symbology (Sheet 10)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------------|--|
| 22 | ARM | The ARM option is applicable only for the FMU-139 tail fuze code 3, FMU-140 nose fuze code 7, and the GBU-24B/B weapon code 55. For the FMU-139 tail fuze code 3, the ARM option times are: 5.5 and 10 seconds. For the FMU-140 nose fuze code 7, the ARM option times are: 1, 2, 4, 6, 8, and 10 seconds. For the GBU-24B/B weapon the ARM option times are: 5.5 and 12 seconds (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 23 | Rack ID Character (Diamond) | Displayed when Aircraft Bomb Ejector Rack BRU-33/A (VER), Multiple Ejector Rack (MER), or Triple Ejector Rack (TER) is loaded aboard aircraft (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02). |
| 24 | Weapon Count | Indicates total number of weapons of same weapon type loaded aboard stations 2, 3, 5, 7, and 8 (Stores Inventory Schematic, A1-F18AC-740-500, WP015 02) For troubleshooting relating to specific weapon stations, see table 15, WP005 00. |
| 25 | Stations 1 thru 9 Store Character | Indicates type of store loaded on each weapon station. The MC receives a store code from the SMS for stores loaded on each weapon station. Store characters are labeled per table 1 or 2 (Weapon Select Schematic, A1-F18AC-740-500, WP016 00). |
| 26 | Priority Station Selected | Box around weapon character at station 2, 3, 5, 7, or 8 indicates the first station (priority station) from which the selected A/G weapon will be released. Rockets priority station boxed only when single (SGL) mode is selected (Weapon Select Schematic, A1-F18AC-740-500, WP016 00). |
| 27 | Rocket Delivery/Fire Sequence Options | Displayed when rockets are selected weapon. Rocket delivery modes are selected by pushbutton options CCIP and MAN. One of the modes is selected and boxed at all times. Firing sequence options of single (SGL) and salvo (SAL) are also displayed. When SGL sequence option is selected, priority station is boxed. When SAL sequence option selected, priority station is not boxed (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00). |
| 28 | DRAG | Available only for the MK-82 Snakeye bomb (store code 28 or 29) configured for inflight selectable drag options. When DRAG pushbutton is pressed, the drag options free fall (FF) and retard (RET) are displayed. When the drag option is selected, the option is displayed on the DRAG line of program status (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |

Figure 2. A/G Stores Symbology (Sheet 11)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 29 | EFUZ | EFUZ displayed when the SMS identifies to MC that electrical fuze options are available for selection based on nose and tail fuze codes set into the Armament Computer CP-1342/AYQ-9(V) (armament computer) for the selected weapon. When EFUZ pushbutton option is pressed, the electrical fuzing options applicable to the selected weapon are displayed. The options OFF, VT (variable time or proximity), INST (instantaneous), VT 1 (variable time one), VT 2 (variable time two), DLY 1 (delay one), and DLY 2 (delay two) are provided when the codes are set into the armament computer. When the option is selected, the selected fuzing is displayed in the EFUZ line of the program status (Electrical Fuzing Schematic, A1-F18AC-740-500, WP074 00). |
| 30 | MFUZ | MFUZ displayed when SMS identifies to MC that mechanical fuze options are available for selection based on nose and tail fuze codes set into the armament computer for the selected weapon. When MFUZ pushbutton is pressed, the mechanical fuzing options applicable to the selected weapon are displayed. The options OFF, MIX, NOSE, PRI, LDLY, TAIL, and N/T (nose and tail) are provided when the codes are set into the armament computer. When the option is selected, the selected fuzing is displayed in the MFUZ line of the program status (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 31 | MODE | MODE option displayed for programs 1 thru 4 only. When MODE pushbutton is pressed, the four mode options AUTO, LOFT (for nuclear weapons), CCIP, and MAN are displayed. When a mode is selected, the mode is displayed in the MODE line of program status (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 32 | M4/M66 Box | Box indicates rocket motor type selected. Pressing pushbutton alternates selection (Rocket Avionic Interface Schematic, A1-F18AC-740-500, WP071 00). |
| 34 | LOS | Displayed and flashed when Harpoon is selected (HP or THP). LOS flashes for 40 seconds during which straight and level flight on the launch heading must be maintained. When the LOS stops flashing, the Harpoon gyro is erect and the weapon is ready for launch (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 35 | SIM | Displayed when MASTER switch on Master Arm Control Panel Assembly is set to SAFE position. Legend is boxed when pushbutton is pressed and SIM mode enable is received by mission computer system from SMS. SIM mode inhibits master arm. If MASTER switch is set to ARM before SIM mode is deselected, master arm logic will remain safe until MASTER switch is cycled (Simulation Mode Select Schematic, A1-F18AC-740-500, WP022 00). |

Figure 2. A/G Stores Symbology (Sheet 12)

| Index No. | Display Element (Ref Code) | Description | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------------------------------|---|------------------------|-------|---------------------|-------|-------------|-----|----------|----------------------|----------------|--------------------|------------|------------------|---------------------|---|---------------|-----|-------------------|-----|----------------|-----|------------|------------------|
| 36 | SAF DSBL | Displayed when training Harpoon (THP) is selected. Legend is boxed when selected and SMS provides the fail safe lockout signal to the training Harpoon. This allows the weapon to be launched even though it is not receiving a range tone (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). | | | | | | | | | | | | | | | | | | | | | | |
| 37 | TIMING | Displayed 20 seconds after Harpoon seeker standby power is applied. If the missile is launched while TIMING is displayed, the missile seeker will not turn on until it has completed warmup (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP 054 02). | | | | | | | | | | | | | | | | | | | | | | |
| 38 | TOM | Indicates agent time-of-mix setting in the CSC entered by way of the equipment control (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). | | | | | | | | | | | | | | | | | | | | | | |
| 39 | Data Freeze Parameters (Bomb) | <p>When DATA option is selected, data from the last bomb, HARM PB, or Rockets release in A/G master mode: or last designation in NAV or A/G is frozen and stored in memory.</p> <p>The data stored at designation are:</p> <table><tr><td>Designated Slant Range</td><td>D/RNG</td></tr><tr><td>Designated Altitude</td><td>D/ALT</td></tr></table> <p>The data stored at release are:</p> <table><tr><td>Slant Range</td><td>RNG</td></tr><tr><td>Altitude</td><td>ALT (B, AGR, LTD, R)</td></tr><tr><td>Steering Error</td><td>ERROR L or ERROR R</td></tr><tr><td>Roll Angle</td><td>ROLL R or ROLL L</td></tr><tr><td>Normal Acceleration</td><td>G</td></tr><tr><td>True Airspeed</td><td>TAS</td></tr><tr><td>Flight Path Angle</td><td>FPA</td></tr><tr><td>Time of Flight</td><td>TOF</td></tr><tr><td>Bank Angle</td><td>BANK R or BANK L</td></tr></table> <p>(Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00).</p> | Designated Slant Range | D/RNG | Designated Altitude | D/ALT | Slant Range | RNG | Altitude | ALT (B, AGR, LTD, R) | Steering Error | ERROR L or ERROR R | Roll Angle | ROLL R or ROLL L | Normal Acceleration | G | True Airspeed | TAS | Flight Path Angle | FPA | Time of Flight | TOF | Bank Angle | BANK R or BANK L |
| Designated Slant Range | D/RNG | | | | | | | | | | | | | | | | | | | | | | | |
| Designated Altitude | D/ALT | | | | | | | | | | | | | | | | | | | | | | | |
| Slant Range | RNG | | | | | | | | | | | | | | | | | | | | | | | |
| Altitude | ALT (B, AGR, LTD, R) | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Error | ERROR L or ERROR R | | | | | | | | | | | | | | | | | | | | | | | |
| Roll Angle | ROLL R or ROLL L | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Acceleration | G | | | | | | | | | | | | | | | | | | | | | | | |
| True Airspeed | TAS | | | | | | | | | | | | | | | | | | | | | | | |
| Flight Path Angle | FPA | | | | | | | | | | | | | | | | | | | | | | | |
| Time of Flight | TOF | | | | | | | | | | | | | | | | | | | | | | | |
| Bank Angle | BANK R or BANK L | | | | | | | | | | | | | | | | | | | | | | | |

Figure 2. A/G Stores Symbology (Sheet 13)



| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 40 | DATA | DATA option is not displayed when the UNLK option has been actuated and the racks are unlocked. When selected, it provides for data to be frozen and stored during designation or bomb release (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 40A | TONE | TONE option is displayed on the stores data format. TONE pushbutton enables COMM tone transmission from Receiver-Transmitter No. 1 (COMM 1) or No. 2 (COMM 2) when required for weapon release. When A/G master mode is selected TONE is displayed. When TONE pushbutton is first pressed, TONE 1 is displayed and boxed to indicate COMM 1 is enabled for transmitting a tone at weapon release. When the pushbutton is pressed again, TONE 2 is displayed and boxed and COMM 2 is enabled. TONE is available for all A/G weapons except gun (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 41 | HT | Option is used to select the height of burst setting for the weapon delivery calculations. Setting of 300, 500, 700, 900, 1200, 1500, 1800, 2200, 2600 or 3000 is displayed (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 42 | HT Setting | Indicates height of burst setting selected by HT pushbutton (Bomb Avionic Interface Schematic, A1-F18AC-740-500, WP063 00). |
| 43 | Data Freeze Parameters (Gun or Rocket) | Displayed when DATA freeze pushbutton pressed and most recent weapon fired was A/G gun or rocket. The data displayed and stored are: <div> <div>Slant Range</div> <div>RNG</div> </div> <div> <div> Maximum Range</div> <div>RMAX</div> </div> <div> <div>Normal Acceleration</div> <div>G</div> </div> <div> <div>Altitude</div> <div>ALT (B, AGR, LTD, R)</div> </div> <div> <div>True Airspeed</div> <div>TAS</div> </div> <div> <div>Flight Path Angle</div> <div>FPA</div> </div> <div> <div>Roll Angle</div> <div>ROLL R or ROLL L</div> </div> <div> <div> Error Angle</div> <div>ERROR (if sensor is tracking)</div> </div> <div> <div>Range at Designation</div> <div>D/RNG</div> </div> <div> <div>Gun Rounds</div> <div>RNDS</div> </div> <div> <div>Altitude at Designation</div> <div>D/ALT</div> </div> (Data Freeze Display Schematic, A1-F18AC-740-500, WP076 02). |

Figure 2. A/G Stores Symbology (Sheet 14)

| Index No. | Display Element (Ref Code) | Description |
|-----------|-----------------------------|---|
| 44 | PGU | Displayed when gun selected. When pushbutton is pressed, ballistics computations for the high speed PGU 20mm rounds are selected. Legend is boxed when selected. System initializes with PGU selected at power up (Air To Air Gun Avionic Interface Schematic, A1-F18AC-750-500, WP005 00) or (Air To Ground Gun Avionic Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 45 | M50 | Displayed when gun is selected. When pushbutton is pressed, ballistics computations for the M50 20mm rounds are selected. Legend is boxed when selected. System initializes with PGU selected at power up (Air to Air Gun Avionic Interface Schematic, (A1-F18AC-750-500, WP005 00) or (Air to Ground Gun Avionic Interface Schematic, A1-F18AC-750-500, WP006 00). |
| 46 | Inhibit Envelope Indication | Indications are: LASER with X superimposed - the MC inhibits the LDT/R due to an unanalyzed store, a ferried nuclear weapon on station 3 or 5, or a load fault exists. MIN L - Laser has minimum firing area to the left. MIN R - Laser has minimum firing area to the right. MIN - Laser has minimum firing area to both the left and right. LASER - Laser has maximum firing area. |
| 47 | Boat Cue | A boat symbol under the threat type indicates a sea threat. (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 48 | Sea Threat List | A list of the types of sea threats that correlate to the type of Shrike selected. The threat list will be in priority order (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 49 | Land Threat List | A list of the types of land threats that correlate to the type of Shrike selected. The threat list will be in priority order (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |

Figure 2. A/G Stores Symbology (Sheet 15)

| Index No. | Display Element (Ref Code) | Description |
|---|------------------------------|--|
| 50 | SXXXX | The selected Shrike from the wingform is displayed over the land and sea threat lists. See table 1 (store code 59) for possible weapon displays (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 51 | EASB | Electronic Altitude Sensor Bypass (EASB) displayed if it is a selectable option for the type of Shrike selected. Legend is boxed when selected (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 52 | AUTO, Man | AUTO and MAN are displayed when Shrike is selected. The applicable delivery mode legend is boxed when selected (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 53 | SH Legend | Pushbutton legend boxed to indicate Shrike weapon selected (AGM-45 Shrike Avionic Interface Schematic, A1-F18AC-740-500, WP050 00). |
| 54 | Time Delay | The Time Delay option is applicable only for the FMU-139 tail fuze code 3, the FMU-140 nose fuze code 7, and the GBU-24B/B weapon code 55 (Bomb/Mine Delivery Program Select Schematic, A1-F18AC-740-500, WP065 00). |
| 55 | IN RNG IN ZONE ## TTMR | <p>IN RNG is displayed when the range to the HARM target is less than or equal to the HARM EOM maximum range if the aircraft executes a 45 degree pull-up (5g maneuver).</p> <p>IN ZONE is displayed when the HARM target is at the HARM/EOM maximum range for the current flightpath.</p> <p>## TTMR displays the PB/EOM or TOO/EOM time to the maximum range up to 99 seconds. ## TTMR is removed when the timer has expired and the target is in range</p> <p>(AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP057 02).</p> |
| <p style="text-align: center;">LEGEND</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>1 In CCIP Mode Only.</p> </div> | | |

Figure 2. A/G Stores Symbology (Sheet 16)

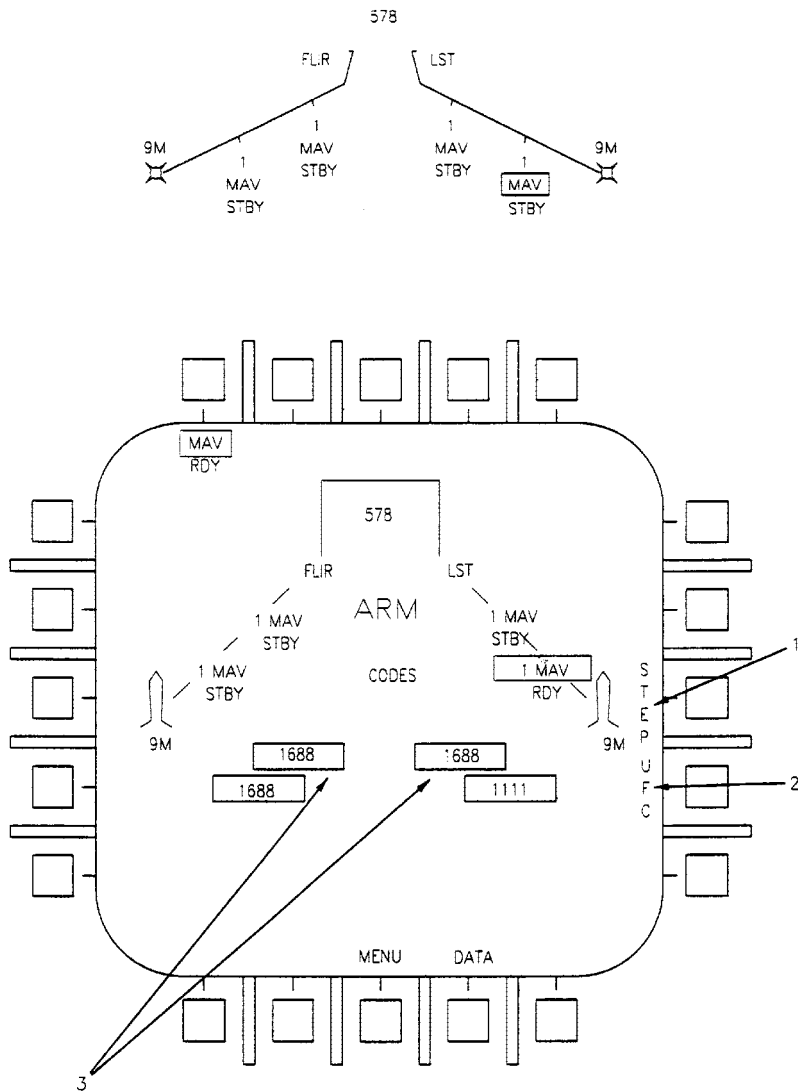


Figure 3. Stores Display with Laser Maverick Selected (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 1 | STEP | Displayed when Maverick selected, air-to-ground master mode, and SMS indicates step is available. Pressing pushbutton advances station selection. When new station is selected, it will be boxed and RDY displayed if the weapon is not failed or hung. The station which was selected will unbox and status will be returned to STBY (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP052 02). |
| 2 | UFC | Displayed when Maverick is selected. Pressing pushbutton will box all stations and allow laser code entry on the UFC, or allow entry of codes for individual stations by repeatedly pressing pushbutton. The stations sequence in the order: ALL, 2, 3, 7, 8 EXIT. A valid code entry for a selected station will display the code at that station and box the next station in sequence. Station selection may be advanced without code entry by pressing the UFC pushbutton (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP052 02). |
| 3 | Station LASER Code and Box | Laser codes for each station are displayed on a miniature wingform with a box on the station(s) selected for laser code entry (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP052 02). |

Figure 3. Stores Display with Laser Maverick Selected (Sheet 2)

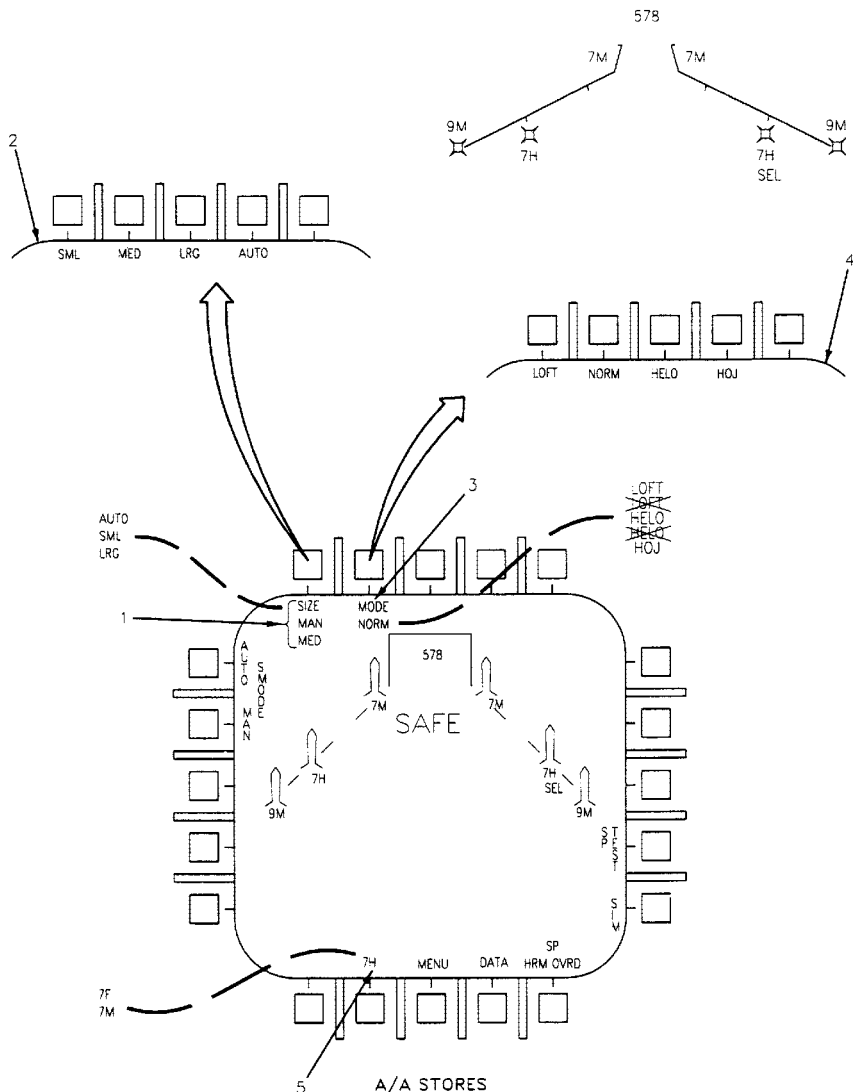
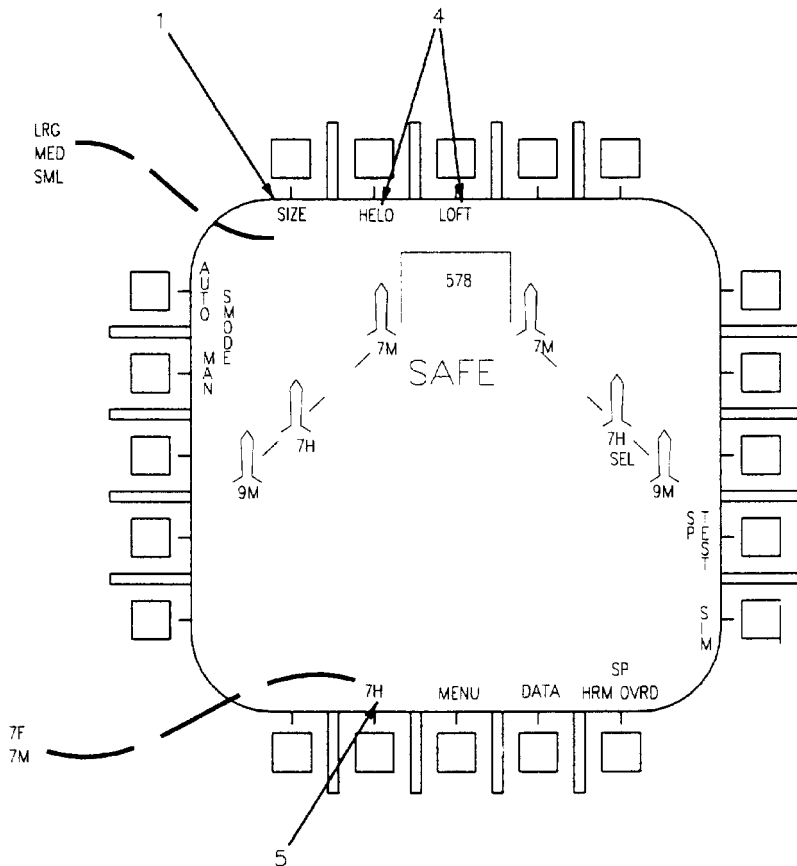


Figure 4. A/A Stores Target/Mode Symbolry (Sheet 1)



A/A STORES

Figure 4. A/A Stores Target/Mode Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 1 | Target Sizing Option | SIZE option is provided for AMRAAM and AIM-7H Sparrow missile to improve guidance control against small targets. The target size option has no effect on 7F or 7M missiles. The option initializes to MED upon power up with weight on wheels. Pressing the SIZE pushbutton switch allows selection of SML (small), MED (medium), or LRG (large). Once selected, the size option selected does not change during the remainder of the flight unless changed by the operator Pressing SIZE pushbutton switch displays target size pushbutton switch options (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP045 00). |
| 2 | Target Size | The option initializes to MED upon power up with weight-on-wheels. Pressing the SIZE pushbutton switch allows selection of SML (small), MED (medium), or LRG (large). Once selected, the size option selected does not change during the remainder of the flight unless changed by the operator Pressing SIZE pushbutton switch displays target size pushbutton switch options (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP045 00). |
| 3 | Special Launch Mode Option | MODE option is displayed on the top level A/A stores display when AIM-7 is the selected weapon (any AIM-7 type). Selected mode is also displayed. An X is displayed over the mode if it is not valid. Pressing MODE pushbutton switch causes special launch mode sublevel option pushbutton switches of NORM and LOFT to be displayed (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP045 00). |
| 4 | Special Launch Mode | Special launch mode options LOFT and HELO are displayed at pushbutton 7 and 8. Pressing the LOFT or HELO pushbutton switch boxes the option label when that launch mode is selected. |
| | HELO | Displayed when AIM-7H is the selected weapon. Pressing HELO pushbutton switch, boxes the HELD option label. HELO is displayed with an X superimposed over it when enabling parameters are not met. HELO is selected and deselected by operator action. |
| | HOJ | Displayed when AIM-7H is the selected weapon and the radar is OFF, STBY, SIL, or EMCOM. Pressing the HOJ pushbutton switch boxes the option label. |
| | LOFT | Displayed when AIM-7F, 7M or 7H is the selected weapon and radar is in full track. Pressing LOFT pushbutton switch, boxes the LOFT option label. LOFT is displayed with an X superimposed over it when LOFT mode is disabled. LOFT launch mode increases both missile maximum range and energy at target intercept by biasing aircraft steering 30 degrees upwards and modifying missile English bias signals to attain the maximum effect (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP045 00). |
| 5 | AIM-7 Designation | Displayed when AIM-7 is the selected weapon. Pressing the AIM-7 designation pushbutton switch commands the SMS to upgrade the AIM-7 type from the type indicated by the active ID in the order 7F, 7M, 7H and back to 7F. The SMS does not accept a designation less than the active ID received from the missile (AIM-7 Sparrow Avionic Interface Schematic, A1-F18AC-740-500, WP045 00). |

Figure 4. A/A Stores Target/Mode Symbology (Sheet 3)

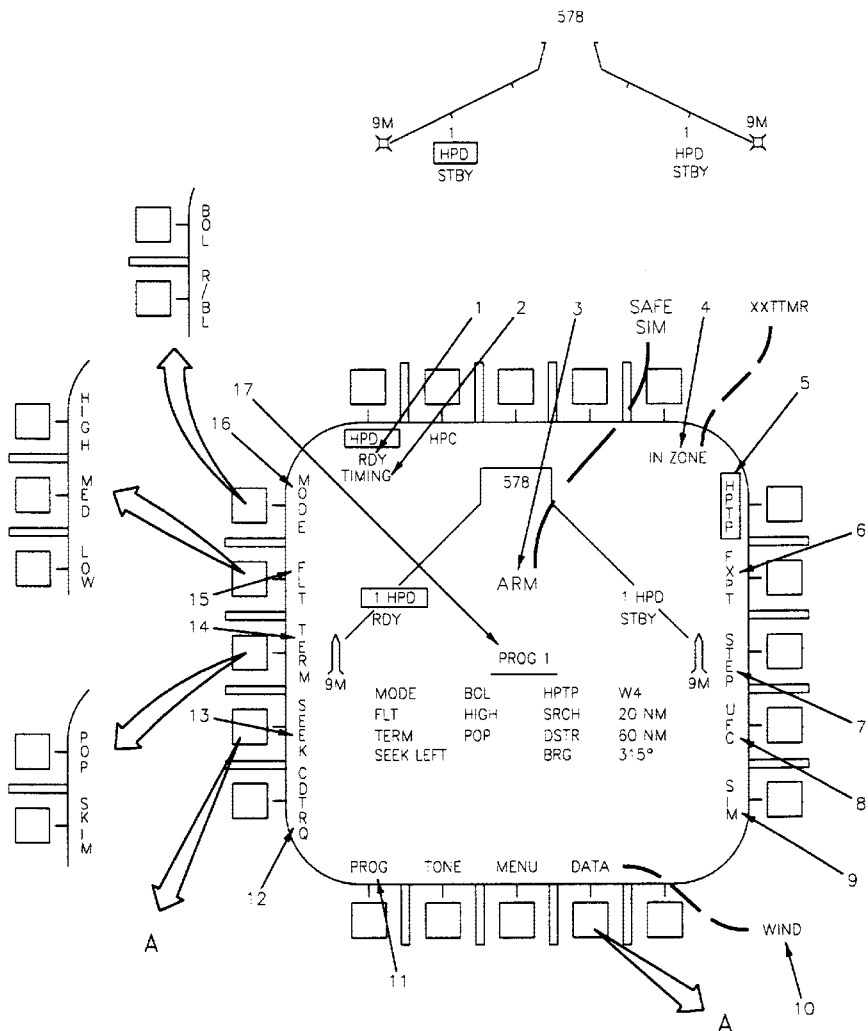
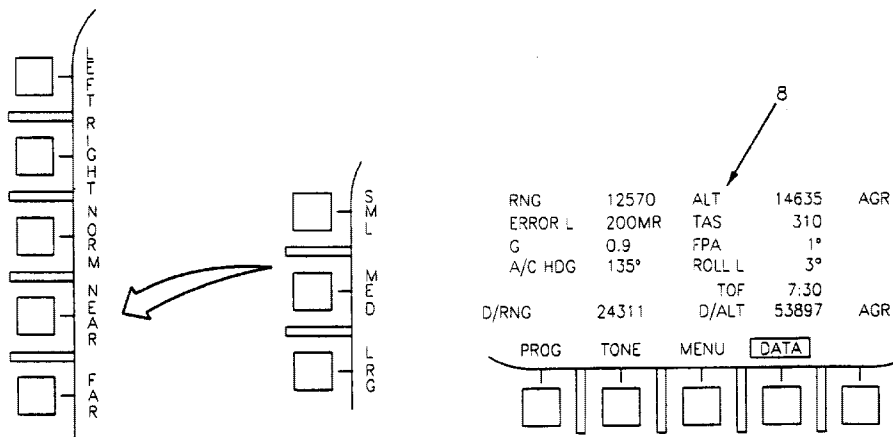


Figure 5. Harpoon Stores Format (Sheet 1)



A

Figure 5. Harpoon Stores Format (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 1 | RDY | Displayed when the missile gyro is up to speed and the missile responds with a ready operational status (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 2 | TIMING | Displayed for 25 seconds when seeker standby power is applied to the missile and for 20 seconds while the gyros are brought up to speed in the selected missile (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP 054 02). |
| 3 | ARM/SAFE/ SIM | ARM and SAFE are displayed when MASTER ARM switch on Master Arm Control Panel Assembly is set to ARM or SAFE respectively and SIM mode is not selected. SIM is displayed in place of ARM or SAFE when SIM mode is selected and MASTER ARM switch on the Master Arm Control Panel Assembly is set to SAFE (Master Arm Schematic, A1-F18AC-740-500, WP017 00). |
| 4 | IN ZONE | Displayed when the missile is in range. XX (seconds) TTMR (time to reach maximum range) is displayed when the missile is not yet in zone. |
| | Harpoon Error Cue | Harpoon Error Cues are displayed when present and will override in zone indications. Error cues displayed include: <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> TGT/HPTP AC/HPTP SCH/DSTR ALT INV SRCH INV TGT OFF AXIS HPTP ANG DSTR ANG </div> <div style="width: 55%;"> target is too close to the turnpoint aircraft too close to the turnpoint search range too close to destruct range altitude too low search range too large range to target too large off axis bearing too large Harpoon turn angle too large destruct range too large </div> </div> (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP 054 02). |
| 5 | HPTP | Harpoon turn point option is displayed when FXPT (fixed point) is not boxed. When selected, the option is boxed and the current waypoint/OAP/mark number is copied to the HPTP parameter. When HPTP is deselected (not boxed) a default parameter (none) is stored. HPTP is displayed only when an AGM-84D is selected (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 6 | FXPT | Provided to allow the selection of the fined aimpoint or fixed bearing search pattern. When FXPT is boxed, HPTP and UFC options are not displayed and the SRCH, DSTR, and BRG program field values will change as aircraft distance to the fixed point changes. Deselecting FXPT (not boxed) selects fixed bearing option. FXPT is not displayed when HPTP is selected (boxed) or with weight on wheels (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |

Figure 5. Harpoon Stores Format (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 7 | STEP | Displayed to allow deselection of the currently selected missile and the selection of the next missile in priority order (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 8 | UFC | Selection of the UFC option commands the up-front control option windows to display SRCH (search), DSTR (destruct), and BRG (off-angle bearing). Valid entry into the scratchpad for SRCH is a value from 0 to 105. Valid entry for DSTR is a value from 0 to 172. Valid entry for BRG is a value from 0 to 359. The UFC scratchpad display flashes when invalid entries are entered. The scratchpad display is cleared after 30 seconds when no entry is made and the sequence must be repeated (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 9 | WIND | The WIND option is available to program wind data which is used for ballistic weapon delivery accuracy improvement. Target area wind data can be entered via the MDL or via the displays into the wind table (Mission Data Loader Functional, A1-F18AC-580-500, WP009 00). |
| 10 | SIM | Pressing the SIM (simulate) pushbutton switch displays SIM in place of ARM or SAFE and SIM is displayed. The sim mode provides the complete attack displays including IN ZONE and XX TTMR (seconds - time to maximum range) (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 11 | PROG | Selection of PROG option steps to the next of the four available Harpoon programs for each program type (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 12 | SEEK (RIGHT LEFT NEAR NORM FAR SML MED LRG) | SEEK is displayed in R/BL mode to select SML (small), MED (medium), or LRG (large) modes. Selecting seek option displays two fixed pattern and one expanding pattern selection options. SML, MED, and LRG provides selection of seeker search area with SML providing the most optimum detection. LRG is the expanding seeker search pattern. When LRG is selected, the options of LEFT, RIGHT, NORM, NEAR, and FAR are displayed for selection of the initial seeker search area. When a target is not detected in the initial seeker search area, the search area is expanded to the entire (large) area (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |
| 13 | TERM | Displayed only when an AGM-84D is selected. Provided to select terminal trajectory flight option and displays SKIM and POP options. Selection of SKIM or POP sets the option on the active program terminal trajectory parameter (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). |

Figure 5. Harpoon Stores Format (Sheet 4)

| Index No. | Display Element (Ref Code) | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------------------|---|-------------|-----|---------------------------------|-------|-----------------------------|---|---------------------|---------|-----------------------|-----|-----------------------|-----|--------------------------|-----|--------------------------|------|----------------------------|-----|-------------------|-------|----------------------|-------|---|--|-------------|--|-------------------|--|--------------------|--|
| 14 | FLT | Displayed only when an AGM-84D is selected. Provided to select pre-search flight options. Displays HIGH, MED, and LOW options for selecting fly-out altitude when an AGM-84D is selected. Selecting HIGH commands the missile to a high altitude fly-out, MED commands the missile to a normal fly-out, and a low altitude fly-out (sea skim) in LOW. MED is always displayed for all pre-AGM-84D missile models (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | MODE | BOL (bearing only launch) and R/BL (range/bearing launch) displayed when MODE pushbutton switch pressed. Provides selection of BOL or R/BL launch modes. A target must be designated for a R/BL launch. Selection of BOL or R/BL moves the MODE, FLT, and TERM cues to the stores display format. SEEK is displayed in R/BL mode FXPT and UFC are displayed in BOL mode (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | Harpoon Program Data | Displays the selected Harpoon program number and the program parameters as applicable for the selected missile and launch option selection (AGM-84 Harpoon Avionic Interface Schematic, (A1-F18AC-740-500, WP054 02). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | CDTRQ | Displayed when ATM-84 missiles are on board CDTRQ (command destruct tones required) is automatically displayed when an ATM-84 missile is selected and allows it to be launched in the fail-safe mode. The fail-safe mode requires an intent to launch (ITL) signal to be sent to the telemetry station. When telemetry confirms proper missile operation and the missile passes the command destruct tone reception test, an enabled signal is sent back to the missile. The delay from ITL transmittal and missile launch is 10 seconds. HUNG is displayed when the command destruct tone test fails. An unboxed CDTRQ allows the missile to be launched in the fail-safe lockout mode. A fail-safe lockout mode launch is identical to a tactical launch (AGM-84 Harpoon Avionic Interface Schematic, A1-F18AC-740-500, WP054 02). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | Harpoon Data Freeze Parameters | <p>Harpoon data is frozen at weapon release and displayed when the data pushbutton is selected (boxed).</p> <p>Displayed parameters include:</p> <table><tr><td>Slant range</td><td>RNG</td></tr><tr><td>Steering error (BOL, R/BL only)</td><td>ERROR</td></tr><tr><td>Ownship normal acceleration</td><td>G</td></tr><tr><td>Ownship MAG heading</td><td>A/C HDG</td></tr><tr><td>Altitude above target</td><td>ALT</td></tr><tr><td>Ownship true airspeed</td><td>TAS</td></tr><tr><td>Ownship flightpath angle</td><td>FPA</td></tr><tr><td>Roll angle (right, left)</td><td>ROLL</td></tr><tr><td>Time of flight (R/BL only)</td><td>TOF</td></tr><tr><td>Designation range</td><td>D/RNG</td></tr><tr><td>Designation altitude</td><td>D/ALT</td></tr><tr><td>Ownship and designation altitude source</td><td></td></tr><tr><td> Radar (AGR)</td><td></td></tr><tr><td> Barometric (BARD)</td><td></td></tr><tr><td> Radar altitude (R)</td><td></td></tr></table> | Slant range | RNG | Steering error (BOL, R/BL only) | ERROR | Ownship normal acceleration | G | Ownship MAG heading | A/C HDG | Altitude above target | ALT | Ownship true airspeed | TAS | Ownship flightpath angle | FPA | Roll angle (right, left) | ROLL | Time of flight (R/BL only) | TOF | Designation range | D/RNG | Designation altitude | D/ALT | Ownship and designation altitude source | | Radar (AGR) | | Barometric (BARD) | | Radar altitude (R) | |
| Slant range | RNG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Steering error (BOL, R/BL only) | ERROR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ownship normal acceleration | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ownship MAG heading | A/C HDG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Altitude above target | ALT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ownship true airspeed | TAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ownship flightpath angle | FPA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Roll angle (right, left) | ROLL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time of flight (R/BL only) | TOF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Designation range | D/RNG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Designation altitude | D/ALT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ownship and designation altitude source | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Radar (AGR) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barometric (BARD) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Radar altitude (R) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 5. Harpoon Stores Format (Sheet 5)

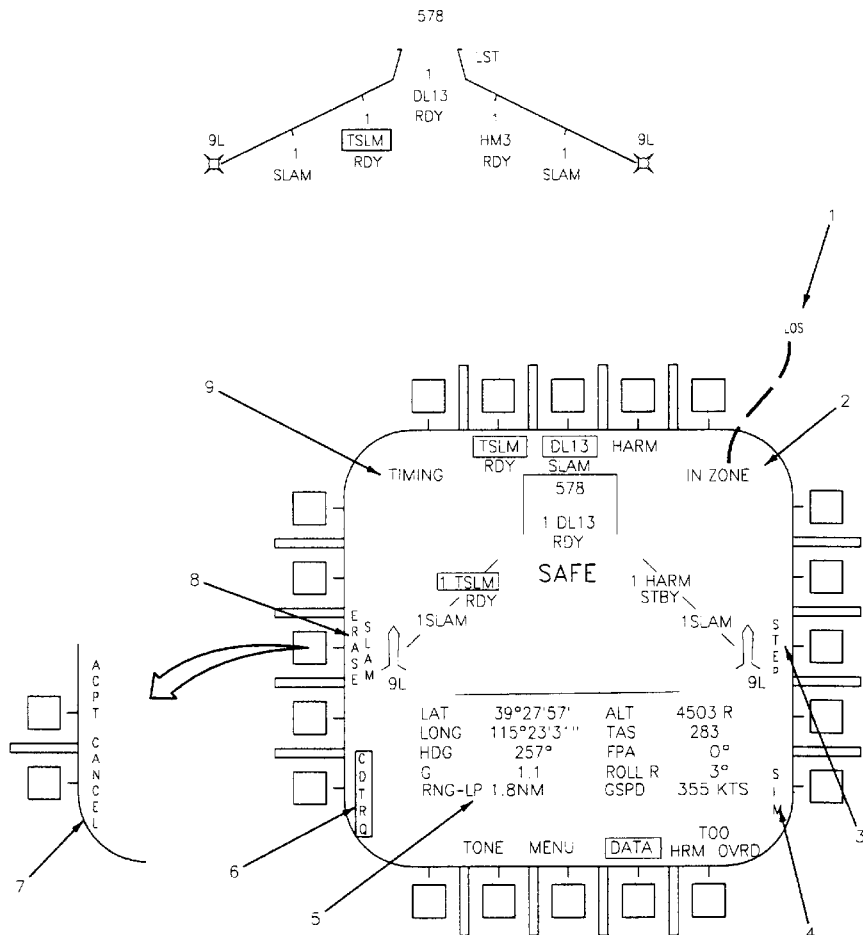


Figure 6. SLAM Stores Format (Sheet 1)

| Index No. | Display Element (Ref Code) | Description | | | | | | | | | | | | | | | | | | | | |
|---|----------------------------|---|-------------------|-----|--------------------|------|------------------|-----|------------------------------|---|---|--------|----------|-----|---------------|-----|------------------|-----|-------------------------|------|-------------|------|
| 1 | LOS Cue | The LOS cue is displayed and flashed when an LOS missile is selected to indicate the requirement to fly straight and level until the missile INS is aligned. | | | | | | | | | | | | | | | | | | | | |
| 2 | IN ZONE | Displayed when SLAM mode and launch envelope parameters have been met; including aircraft master mode, altitude, true heading, groundspeed, and launch range. | | | | | | | | | | | | | | | | | | | | |
| 3 | STEP | Displayed when more than one SLAM is available for selection. Pressing STEP pushbutton moves the selected SLAM station to the next station in priority order. | | | | | | | | | | | | | | | | | | | | |
| 4 | SIM | Displayed when the aircraft master arm status is SAFE. SIM is boxed when selected and provides complete display and launch simulation of the selected weapon including data updates. | | | | | | | | | | | | | | | | | | | | |
| 5 | Data Freeze (SLAM) | Aircraft parameters at the time of weapon launch are displayed for a SLAM launched in a preplanned or TOO mode. Parameters displayed include: <table><tr><td>Aircraft latitude</td><td>LAT</td></tr><tr><td>Aircraft longitude</td><td>LONG</td></tr><tr><td>Aircraft heading</td><td>HDG</td></tr><tr><td>Aircraft normal acceleration</td><td>G</td></tr><tr><td>Range to launch point (preplanned only)</td><td>RNG-LP</td></tr><tr><td>Altitude</td><td>ALT</td></tr><tr><td>True airspeed</td><td>TAS</td></tr><tr><td>Flightpath angle</td><td>FPA</td></tr><tr><td>Roll angle (right/left)</td><td>ROLL</td></tr><tr><td>Groundspeed</td><td>GSPD</td></tr></table> | Aircraft latitude | LAT | Aircraft longitude | LONG | Aircraft heading | HDG | Aircraft normal acceleration | G | Range to launch point (preplanned only) | RNG-LP | Altitude | ALT | True airspeed | TAS | Flightpath angle | FPA | Roll angle (right/left) | ROLL | Groundspeed | GSPD |
| Aircraft latitude | LAT | | | | | | | | | | | | | | | | | | | | | |
| Aircraft longitude | LONG | | | | | | | | | | | | | | | | | | | | | |
| Aircraft heading | HDG | | | | | | | | | | | | | | | | | | | | | |
| Aircraft normal acceleration | G | | | | | | | | | | | | | | | | | | | | | |
| Range to launch point (preplanned only) | RNG-LP | | | | | | | | | | | | | | | | | | | | | |
| Altitude | ALT | | | | | | | | | | | | | | | | | | | | | |
| True airspeed | TAS | | | | | | | | | | | | | | | | | | | | | |
| Flightpath angle | FPA | | | | | | | | | | | | | | | | | | | | | |
| Roll angle (right/left) | ROLL | | | | | | | | | | | | | | | | | | | | | |
| Groundspeed | GSPD | | | | | | | | | | | | | | | | | | | | | |
| 6 | CDTRQ | Command destruct required is displayed when a training SLAM (TSLM) is the selected weapon. Selection alternately boxes and unboxes the selection. When the option is boxed, required range destruct signals must be available before launch of the TSLM. If launch is attempted with CDTRQ boxed and no range signal, WFAIL will be displayed for the station. | | | | | | | | | | | | | | | | | | | | |
| 7 | ACPT/ CANCEL | Displayed when ERASE SLAM is selected. When CANCEL is selected the display returns to ERASE with no other action. When ACPT is selected the display returns to ERASE and the SMS is commanded to erase the overlay. ERASE is boxed while an erase operation is in progress. | | | | | | | | | | | | | | | | | | | | |
| 8 | ERASE SLAM | Provided to allow erasure of GPS data in A/G or NAV master mode. Displayed when SLAM is the selected weapon. | | | | | | | | | | | | | | | | | | | | |
| 9 | TIMING | Displayed when SLAM is the selected weapon and the SMS reports that the missile is in a timing cycle. | | | | | | | | | | | | | | | | | | | | |

Figure 6. SLAM Stores Format (Sheet 2)

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8

| Store Code | Weapon Display | Store Description |
|-------------------|-----------------------|---|
| 00 | NONE (BLANK) | No Store (Empty Station) |
| 01 | FUEL | Fuel Tank |
| 02 | RE T | MK-20 Rockeye II, MOD 7, With Thermal Protection |
| 03 | RE | MK-20 Rockeye II, MOD 8, Without Thermal Protection |
| 05 | GATR | GATOR Mine (CBU-78/B) |
| 06 | 76 | MK-76 Practice Bomb (Conventional Use), BDU-33, or Tactical Air Launched Device |
| 07 | 106 | MK-106 Practice Bomb (Conventional Use) (also Mk 58 Marine Location Marker) |
| 08 | 48 | BDU-48/B Practice Bomb, High Drag (Conventional Use) |
| 09 | BL-1 | Not Applicable |
| 10 | BL-2 | Not Applicable |
| 11 | BL-3 | Not Applicable |
| 12 | BL-4 | Not Applicable |
| 13 | 84 | MK-84 Without Thermal Protection |
| 14 | 84 T | MK-84 Thermally Protected |
| 15 | 84LG | MK-84 Laser Guided Bomb, With/Without Thermal Protection |
| 16 | 83B | MK-83 Blunt Nose Without Thermal Protection |
| 17 | 83P | MK-83 Pointed Nose Without Thermal Protection |
| 18 | 83BT | MK-83 Blunt Nose, Thermally Protected |
| 19 | 83PT | MK-83 Pointed Nose, Thermally Protected |
| 20 | 80 | BLU-80 Bigeye |
| 21 | 77 | MK-77 Firebomb |
| 22 | 83CT | MK-83 Low/High Drag (BSU-85) Without Thermal Protection |

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8 (Continued)

| Store Code | Weapon Display | Store Description |
|------------|----------------|---|
| 23 | 83LG | MK-83 Laser Guided Bomb, With/Without Thermal Protection |
| 24 | 82B | MK-82 Blunt Nose Without Thermal Protection |
| 25 | 82P | MK-82 Pointed Nose Without Thermal Protection |
| 26 | 82BT | MK-82 Blunt Nose, Thermally Protected |
| 27 | 82PT | MK-82 Pointed Nose, Thermally Protected |
| 28 | 82X | MK-82 Snakeye With In-Flight-Select Retarded/Unretarded Fin Without Thermal Protection (also LUU-2 Paraflare) |
| 29 | 82XT | MK-82 Snakeye With In-Flight-Select Retarded/Unretarded Fin, Thermally Protected |
| 30 | 82YT | MK-82 Low/High Drag (BSU-86), Thermally Protected |
| 31 | 82SB | MK-82 Blunt Nose With BSU-33, Thermally Protected |
| 32 | 82SP | MK-82 Pointed Nose With BSU-33 Fin, Thermally Protected |
| 33 | 82LG | MK-82 Laser Guided Bomb, With/Without Thermal Protection |
| 34 | 60 | MK-60 Captor Mine (2000 # Class) |
| 35 | 62X0 | MK-62 MOD 0 Quickstrike Mine With EX-16 Fin, High Drag, Thermally Protected |
| 36 | 62T0 | MK-62 Quickstrike Mine (MK-82 Bomb) Mod 0 (MK 15 Fin) Thermally Protected |
| 37 | 62X2 | MK-62 Quickstrike Mine, (MK-82 Bomb) Mode 2, and 3, (EX-16 Fin) Thermally Protected |
| 38 | 62T2 | MK-62 Quickstrike Mine (MK-82 Bomb) Mode 2. 3 (MK 15 Fin) Thermally Protected |
| 39 | - | Spare |
| 40 | 63TF | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 0 (MAU-91A/B Fin) Thermally Protected (OA-3) |
| 41 | - | Spare |
| 42 | 63TC | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 0 (MK 12 Tail) Thermally Protected (OA-5) |
| 43 | - | Spare |

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8 (Continued)

| Store Code | Weapon Display | Store Description |
|------------|---|--|
| 44 | 63T2 | MK-63 Quickstrike Mine (MK-83 Bomb) Mod 2, 3 (MK 12 Tail) Thermally Protected |
| 45 | - | Spare |
| 46 | 64T | MK-64 Quickstrike Mine (MK-84 Bomb) Mod 0, 2, 3 (MK 11 Tail) Thermally Protected |
| 47 | 65 | MK-65 Quickstrike Mine (2000 # Class) Mod 0, 1, 2, 3 (1 Sec. Delay) |
| 48 | N76 | MK-76 Practice Bomb (Nuclear Use) |
| 49 | N106 | MK-106 Practice Bomb (Nuclear Use) |
| 50 | N48 | BDU-48 (Bomb Dummy Unit, Nuclear Usage) |
| 51 | N20 | BDU-20/C or BDU-12 (Bomb Dummy Unit, Nuclear Usage) |
| 52 | N36 | BDU-36C (Bomb Dummy Unit) |
| 53 | SLMR | AGM-84 SLAM Extended Range |
| 54 | EWPD | AN/ALQ-167 Countermeasures set |
| 55 | GB24 | GBU-24B/B Laser Guided Bomb |
| 56 | AGM-84 SLAM | Spare Extended Range with Telemetry |
| 57 | N57 | B-57/BDU-11 (Tactical Weapon/Bomb Dummy Unit) |
| 58 | N61 | B-61, MOD 0, 2, or 5 (Tactical Weapon) |
| 59 | S3 S3A S4 S6 S7 S9 S10 S3E S4E S6E S7E S9E S10E SH | AGM-45 SHRIKE (Weapon display is dependent on nose and tail fuze codes entered into the Armament Computer CP-1342/AYQ 9(V) weapon insertion panel) (A1-F18AC-740-500, WP009 00, table 12) |

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8 (Continued)

| Store Code | Weapon Display | Store Description |
|-------------------|-----------------------|---|
| 60 | SU S | Not Applicable |
| 61 | SU R | Not Applicable |
| 62 | HPC or HPD | AGM-84C/D Harpoon |
| 63 | THP | AGM-84C/D Harpoon (Telemetry) |
| 64 | HARM | AGM-88A/B HARM (Air to Ground) |
| | HM1 | AGM-84 HARM (Air to Ground) |
| | HM2 | HARM missile designation display based in missile ID to Command Launch |
| | HM2A | Computer. If no unique ID, display HARM. |
| | HM3 | |
| | HM3A | |
| | HM3B | |
| | HM4 | |
| | HM4A | |
| | HM4B | |
| | HM4C | |
| | HM4D | |
| | HM5 | |
| | HM5A | |
| | HM5B | |
| | HM5C | |
| 65 | MAV | AGM-65E Maverick, Laser (Air to Ground) |
| 66 | MAVF | AGM-65F Maverick, IR |
| 67 | SLAM | AGM-84E SLAM |
| 68 | WE | AGM-62 Walleye I Weapon (Air to Ground) |
| 69 | WEDL | AGM-62 Walleye I Extended Range/Data Link (ER/DL) (Air to Ground) |
| 6A | MAVG | AGM-65G Maverick, IR |
| 70 | TSLM | ATM-84E SLAM (Telemetry) |
| 71 | DL9 | AN/AWW-9 Walleye Data link Pod |
| 72 | 61S | LAU-61 A/A Rocket Launcher (2.75 in. rockets) with launcher switch in singles setting |
| 73 | 61R | LAU-61 A/A Rocket Launcher with launcher switch in ripple setting |

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8 (Continued)

| Store Code | Weapon Display | Store Description |
|------------|----------------|---|
| 74 | 68S | LAU-68 B/A Rocket Launcher (2.75 in. rockets) with launcher switch in singles setting |
| 75 | 68R | LAU-68 B/A Rocket Launcher with launcher switch in ripple setting |
| 76 | 10S | LAU-10 D/A Rocket Launcher (5 in. rockets) with launcher switch in singles setting |
| 77 | 10S | LAU-10 D/A Rocket Launcher with launcher switch in ripple setting |
| 78 | 36 | MK-36 Destructor (MK-82 Bomb) STD, BSU-86 Fin |
| 79 | 36T | MK-36 Destructor (MK-82 Bomb) Thermally Protected, BSU-86 Fin |
| 80 | 9M | AIM-9M Sidewinder |
| 1 81 | 9L | AIM-9L Sidewinder |
| 1 82 | TST | AN/ASM-464 AIM-9 Missile Test Set |
| 84 | 7F | AIM-7F Sparrow |
| | 7H | AIM-7H Sparrow (H-Build) |
| 2 | 7M | AIM-7M Sparrow |
| 85 | 40F | MK-40 Destructor (MK-83 Bomb) STD, MAU-91A/B Fin |
| 86 | 40TF | MK-40 Destructor (MK-83 Bomb) Thermally Protected, MAU 91A/B Fin |
| 87 | 40C | MK-40 Destructor (MK-83 Bomb) STD, MK 12 Tail |
| 88 | 40TC | MK-40 Destructor (MK-83 Bomb) Thermally Protected, MK 12 Tail |
| 89 | 41 | MK-41 Destructor (MK-84 Bomb) STD, MK 11, Mod 0 Tail |
| 90 | 41T | MK-41 Destructor (MK-83 Bomb) Thermally Protected, MK 11, Mod 0 Tail |
| 91 | 52 | MK-52 Bottom Mine (1000 # Class) Faired |
| 92 | 55 | MK-55 Bottom Mine (2000 # Class) Faired |
| 93 | 56 | MK-56 Moored Mine (2000 # Class) Faired |

Table 1. Store Codes and Weapon Displays for Stations 2 thru 8 (Continued)

| Store Code | Weapon Display | Store Description |
|---|----------------|--|
| 94 | R6S | Not Applicable |
| 95 | R6R | Not Applicable |
| 96 | R10S | Not Applicable |
| 97 | R10R | Not Applicable |
| 98 | 48M | BDU-48 Practice Mine |
| 99 | CNU-188 | Baggage Container |
| A9 | 9P | AIM-9P-4/5 |
| B0 | D9BT | AIM-9 Blue Tube |
| B1 | TP | Trainer Pod |
| F0 | 1760 | 1760 Weapon/Store 1760 acronym will change to acronym for specific 760 weapon loaded when MC/SMS communication is completed. DL13 = AN/AWW-13 Data Link Pod AA/AB/AC = (AMRAAM) A/B/C AT/BT/CT = (AMRAAM) A/B/C with Telemetry ?? = unknown 1760 weapon |
| F1 | ACE | ACE II Pod |
| F3 | CM | Captive Air Training Missile (CATM) (At least one side of wing pylon-station; other side may be active missile, CATM or empty) |
| LEGEND | | |
| 1 Weapon stations 2 and 8. Use Table 2 for weapon stations 1 and 9. | | |
| 2 Code 84 is dialed on thumbwheel but is assigned A0 by SMS. | | |

Table 2. Store Codes and Weapon Displays for Stations 1 and 9

| STORE CODE | DISPLAY | | (LEFT WING) STATION 1 WEAPON | (RIGHT WING) STATION 9 WEAPON |
|------------|---------|-------|---|---|
| | STA 1 | STA 9 | | |
| 0 | - | - | Empty | Empty |
| 1 | 9M | 9M | AIM-9M | AIM-9M |
| 2 | 9L | 9L | AIM-9L | AIM-9L |
| 3 | 9M | 9L | AIM-9M | AIM-9L |
| 4 | 9L | 9M | AIM-9L | AIM-9M |
| 5 | TST | - | AN/ASM-464 AIM-9 Missile Test Set | Empty |
| 6 | - | TST | Empty | AN/ASM-464 AIM-9 Missile Test Set |
| 7 | D9 | D9 | Dummy AIM-9 (without ident) | Dummy AIM-9 (without ident) |
| 8 | - | - | (Not Used) | (Not Used) |
| 9 | TST | TST | END-TO-END TEST Adapter | END-TO-END TEST Adapter |

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

TV VIDEO WEAPON DISPLAY SYMBOLOGY

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| A ANT (Figure 3, Index 11) | 12 |
| A/C (Figure 7, Index 7) | 27 |
| A/C RNG (Figure 7, Index 1) | 27 |
| AGE (Figure 6, Index 23) | 25 |
| AGM-66 Maverick Symbology (Figure 8) | 28 |
| AGM 84E SLAM Symbology - | |
| Digital Data Computer No. 1/No. 2 CONFIG/IDENT | |
| Number 89A AND UP (Figure 9) | 31 |
| AGM-88 HARM Pre-Briefed (PB) Mode Symbology - | |
| Digital Data Computer No. 1/No. 2 CONFIG/IDENT | |
| Number 85A AND UP (Figure 7) | 26 |
| AGM-88 HARM Self-Protect (SP) Mode Symbology - | |
| Digital Data Computer No. 1/No. 2 CONFIG/IDENT | |
| Number 85A AND UP (Figure 5) | 15 |
| AGM-88 HARM Target of Opportunity (Too) Mode Symbology - | |
| Digital Data Computer No. 1/No. 2 CONFIG/IDENT | |
| Number 85A+ AND UP (Figure 6) | 19 |
| Azimuth and Elevation Grid (Figure 6, Index 10) | 24 |
| CAGED/UNCAGED (Figure 1, Index 5) | 6 |
| (Figure 2, Index 4) | 9 |
| CAGED/UNCAGED Notice, Maverick (Figure 8, Index 3) | 29 |
| CCM (Figure 8, Index 13) | 30 |
| CHAN (Figure 3, Index 10) | 12 |
| CLASS Pushbutton (Figure 6, Index 2) | 23 |
| CLR (Figure 5, Index 13) | 18 |
| CRAB (Figure 1, Index 10) | 6 |
| Crosshairs, Video (Figure 1, Index 7) | 6 |
| Cursor (Figure 8, Index 6) | 6 |
| Degraded Mode X (Figure 5, Index 7) | 17 |
| DLY (Figure 1, Index 12) | 7 |
| (Figure 2, Index 10) | 9 |
| DL9 (Figure 3, Index 2) | 11 |
| EASB (Figure 6, Index 24) | 25 |
| Electrical Fuzing Options (Figure 8, Index 15) | 30 |
| F ANT (Figure 3, Index 11) | 12 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| FOV (Figure 9, Index 5) | 32 |
| F/C (Figure 9, Index 8) | 32 |
| Gimble Angle (Figure 8, Index 13) | 30 |
| Gimble Angle Position, 20° (Figure 8, Index 9) | 29 |
| H-OFF (Figure 6, Index 9) | 23 |
| HARM Class/type Pushbutton (Class) (Figure 6, Index 14) | 24 |
| HARM Class/Type Pushbutton (Type) (Figure 6, Index 17) | 25 |
| HARM Legend (Figure 5, Index 1) | 17 |
| (Figure 6, Index 12) | 24 |
| HARM Mode (Figure 5, Index 15) | 18 |
| HARM OVRD Option (Figure 5, Index 5) | 17 |
| HARM Scan/class Lines and Class Activity (Figure 6, Index 16) | 24 |
| HARM Station Number (Figure 6, Index 19) | 25 |
| HARM Title Data Character (Selected Class) (Figure 6, Index 13) | 24 |
| HARM Title Data Character (Selected Type) (Figure 6, Index 18) | 25 |
| HRM (Figure 7, Index 6) | 27 |
| HRM OVRD (Figure 1, Index 9) | 6 |
| (Figure 5, Index 5) | 17 |
| (Figure 8, Index 12) | 30 |
| HRM RNG (Figure 7, Index 1) | 28 |
| IN RNG (Figure 1, Index 6) | 6 |
| (Figure 2, Index 5) | 9 |
| (Figure 7, Index 1) | 24 |
| (Figure 8, Index 4) | 29 |
| INST (Figure 1, Index 13) | 7 |
| (Figure 2, Index 11) | 9 |
| Introduction | 4 |
| Laser Code Digits 1-4 (Figure 8, Index 8) | 29 |
| Laser Operating Code (Figure 8, Index 1) | 29 |
| Launch Constraint Circle (Figure 8, Index 14) | 30 |
| Left Out of Field Arrow (Figure 6, Index 1) | 23 |
| LIMIT (Figure 6, Index 8) | 23 |
| LST (Figure 8, Index 10) | 30 |
| MAN (Figure 6, Index 25) | 25 |
| Manual File Data Box (Figure 5, Index 16) | 18 |
| Manual File Invalid X (Figure 5, Index 10) | 18 |
| Manual File Left/Right Arrows (Figure 5, Index 11) | 18 |
| Manual File Target Data (Figure 5, Index 12) | 18 |
| Manual File Up/Down Arrows (Figure 5, Index 17) | 18 |
| MAP Indicator (Figure 2, Index 6) | 9 |
| MAV (Figure 8, Index 19) | 30 |
| Maverick CAGED/UNCAGED Notice (Figure 8, Index 3) | 29 |
| Missile Axis Position (MAP) Indicator (Figure 2, Index 6) | 9 |
| MN FILE (Figure 5, Index 6) | 17 |
| OFF (RF) (Figure 3, Index 6) | 11 |
| ON (RF) (Figure 3, Index 5) | 11 |
| PAGE Pushbutton Legend (Figure 6, Index 15) | 24 |
| PB (Figure 7, Index 8) | 27 |
| Pod Channel Selected (Figure 3, Index 9) | 11 |
| Pod Status Indicator (Figure 2, Index 8) | 9 |
| (Figure 3, Index 8) | 11 |
| PODVID (Figure 4, Index 1) | 14 |
| Pre and Post Launch Time of Flight (Figure 7, Index 2) | 27 |
| PRE LNCH Display (Figure 9, Index 7) | 32 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| POST LNCH Display (Figure 9, Index 7) | 32 |
| Priority Station Selected (Figure 1, Index 1) | 6 |
| (Figure 2, Index 1) | 9 |
| (Figure 8, Index 17) | 30 |
| Priority Target (Figure 6, Index 5) | 23 |
| PULLUP (Figure 7, Index 5) | 27 |
| PWR (Figure 9, Index 4) | 32 |
| RDY (Figure 5, Index 2) | 17 |
| (Figure 6, Index 21) | 25 |
| RF OFF (Figure 3, Index 6) | 11 |
| RF ON (Figure 3, Index 5) | 11 |
| Right Out of Field Arrow (Figure 6, Index 1) | 23 |
| RSET (Figure 5, Index 4) | 17 |
| SCAN (Figure 6, Index 7) | 23 |
| SH Legend (Figure 6, Index 20) | 25 |
| Shrike Station Number (Figure 6, Index 22) | 25 |
| SIM (Figure 9, Index 9) | 32 |
| SLAM IN-VIDEO (Figure 9, Index 1) | 32 |
| SLAM Narrow Field of View Window (Figure 9, Index 2) | 32 |
| Slave Mode (Figure 8, Index 6) | 29 |
| SP Legend (Figure 5, Index 8) | 17 |
| SPRD (Figure 3, Index 7) | 11 |
| Station Select Indication (Figure 5, Index 9) | 18 |
| Station Selected, Priority (Figure 1, Index 1) | 6 |
| STEP (Figure 1, Index 8) | 6 |
| (Figure 2, Index 7) | 9 |
| (Figure 5, Index 3) | 17 |
| (Figure 6, Index 4) | 23 |
| (Figure 8, Index 7) | 29 |
| Target Number (Figure 7, Index 4) | 27 |
| TDC Symbol, TV Weapon (Figure 3, Index 3) | 11 |
| (Figure 8, Index 2) | 29 |
| TIMING (Figure 8, Index 16) | 30 |
| TOO (Figure 6, Index 11) | 24 |
| TOO Target Modifiers (Figure 6, Index 6) | 23 |
| TRACK (Figure 9, Index 6) | 32 |
| TV Weapon Status (Figure 1, Index 2) | 6 |
| (Figure 2, Index 2) | 9 |
| (Figure 8, Index 18) | 30 |
| TV Weapon TDC Symbol (Figure 3, Index 3) | 11 |
| (Figure 8, Index 2) | 29 |
| TYPE Pushbutton (Figure 5, Index 3) | 23 |
| UFC (Figure 5, Index 14) | 18 |
| (Figure 7, Index 3) | 27 |
| UNCAGED/CAGED (Figure 1, Index 5) | 6 |
| Video Crosshairs (Figure 1, Index 7) | 6 |
| (Figure 2, Index 9) | 9 |
| VTR (Figure 1, Index 11) | 7 |
| (Figure 3, Index 4) | 11 |
| VTR Option Pushbutton (Figure 1, Index 11) | 7 |
| Walleye Data Link Pod Symbolology (Figure 3) | 10 |
| Walleye I ER/DL and Walleye Data Link Pod Combined Symbolology (Figure 4) | 13 |
| Walleye I ER/DL Symbolology (Figure 2) | 8 |
| Walleye I Symbolology (Figure 1) | 5 |

Alphabetical Index (Continued)

| Subject | Page No. |
|---|----------|
| WE (Figure 1, Index 3) | 6 |
| Weapon Status, TV (Figure 1, Index 2) | 6 |
| WEDL (Figure 2, Index 3) | 9 |
| WEPD (Figure 3, Index 2) | 11 |
| XMTR (Figure 9, Index 3) | 32 |
| 20° Down Gimbal Angle Position (Figure 8, Index 10) | 29 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package has illustrations and descriptions of the display elements common to TV video weapon displays. The illustrations are not meant to

represent typical displays, but to provide general appearance and positioning of the elements which make up TV video weapon displays. The descriptions may contain schematic references which show the development of the display elements.

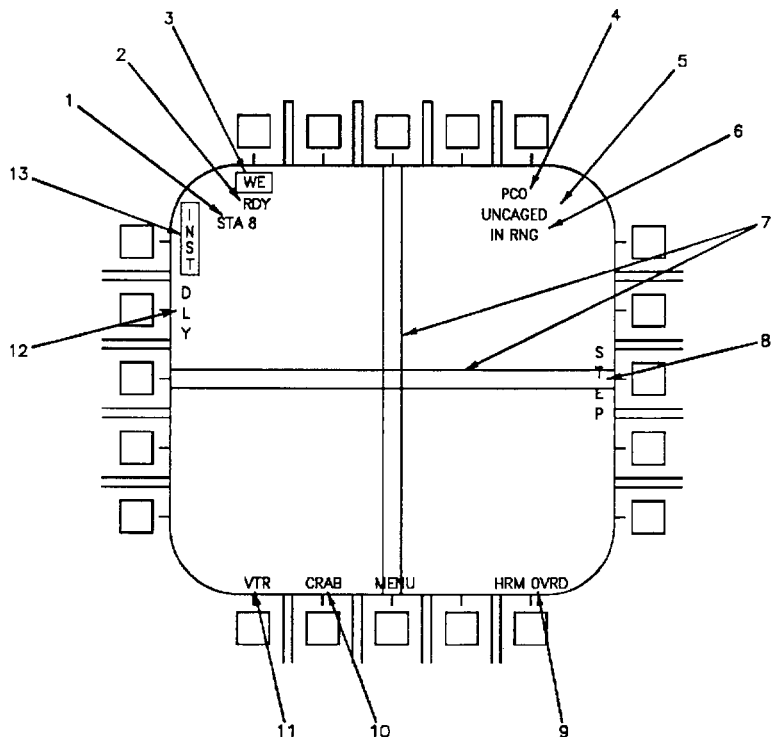


Figure 1. Walleye I Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------------|--|
| 1 | Priority Station Selected (ØTSTAW) | Indicates priority Walleye weapon station selected by the stores management system (SMS) (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 2 | TV Weapon Status (ØTVRDY) | Indicates A/G ready logic is satisfied in SMS and TV weapon is ready for launch (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00) |
| 3 | WE (ØTVWPB) | Displayed when mission computer system (MC) receives store code 68 (Walleye I) from SMS. WE is boxed when pushbutton switch is pressed indicating weapon selection. When A/G ready logic is not satisfied, an X is superimposed through WE and RDY (index 2) is not displayed (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 4 | PCO (ØTWPCØ) | Displayed when the priority weapon status is ready (weapon has gotten power changeover). |
| 5 | CAGED/ UNCAGED (ØTWUNC) | Indicates caged/uncaged status of the Walleye weapon. When the weapon is initially selected, CAGED is displayed. When CAGE/UNCAGE switch on right throttle grip is pressed, UNCAGED is displayed (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 6 | IN RNG (ØTINRG, ØTRNGX) | Displayed by MC when designated target is within range of Walleye weapon and the aircraft ground track is plus or minus 90° of the designated target (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 7 | Video Crosshairs | Displayed as a part of weapon video from the SMS when Walleye I (WE), Walleye I Extended Range/Data Link (WEDL), or Walleye Data Link Pod (WEPD) has been selected. The crosshairs intersection forms the target gate. Lockon is commanded when the target is within the target gate (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 8 | STEP (ØTSTPL) | If more than one Walleye weapon is loaded aboard the aircraft, the priority weapon station is selected by the SMS (index 1). Pressing the STEP pushbutton switch causes SMS to switch to next weapon station in priority release sequence (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 9 | HRM OVRD (ØTTHØL) | Pushbutton switch option displayed when a HARM is loaded aboard aircraft. Allows override of HARM Self-Protect Pullback mode so delivery of Walleye Weapon is not interrupted. Option is boxed when selected (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 10 | CRAB (ØTCRBL) | Displayed when SMS determines Walleye weapon loaded aboard aircraft has crab capability. When Walleye weapon is uncaged (index 5), CRAB legend is not displayed. When Walleye with crab ability is caged (index 5), the CRAB pushbutton switch must be pressed and held to return the weapon camera to weapon boresight. When the weapon video scene no longer changes, the camera has reached weapon caged boresight position, and CRAB pushbutton switch can be released (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |

Figure 1. Walleye I Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 11 | VTR (ØTVTRL) | Displayed when SMS determines Walleye weapon loaded aboard aircraft has a video tape recorder (VTR). When VTR pushbutton switch is pressed, the video tape recorder in the Walleye weapon is energized by the SMS. Pushbutton option is boxed when selected (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 12 | DLY (ØT4PBW) | Displayed when Walleye weapon selected. When pushbutton switch is pressed, delay (DLY) electrical fuzing voltage is provided to the SMS for Walleye electrical fuzing (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 13 | INST (ØT5PBW) | Displayed when Walleye weapon selected. When pushbutton switch is pressed, instantaneous (INST) electrical fuzing voltage is provided to the SMS for Walleye electrical fuzing (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |

Figure 1. Walleye I Symbology (Sheet 3)

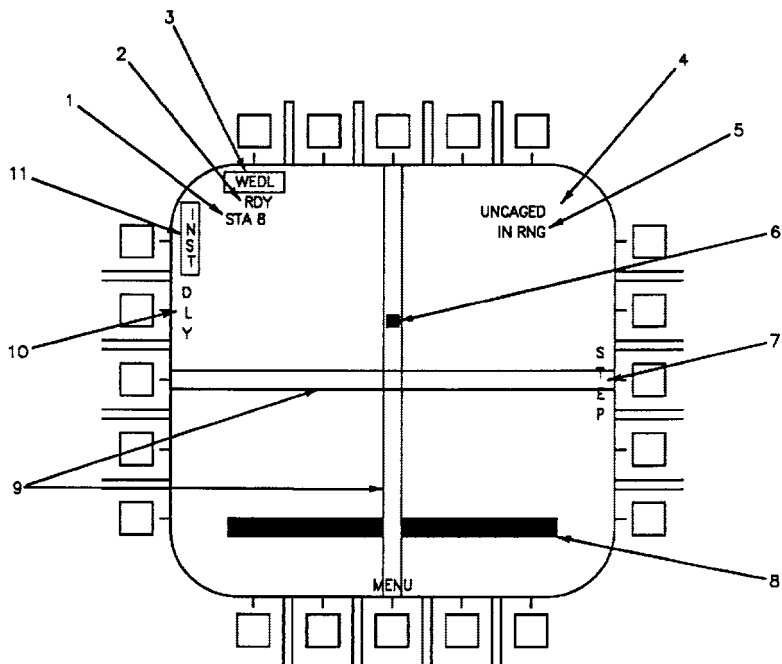


Figure 2. Walleye I ER/DL Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|------------------------------------|---|
| 1 | Priority Station Selected (ØTSTAW) | See figure 1, index 1 |
| 2 | TV Weapon Status (ØTVRDY) | See figure 1, index 2 |
| 3 | WEDL (ØTVWPB) | Option displayed when Walleye I Extended Range/Data Link (ER/DL) weapon is loaded on the aircraft. When pushbutton switch is pressed, Walleye ER/DL priority weapon station is selected and pushbutton legend is boxed (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 4 | CAGED/ UNCAGED (ØTWUNC) | See figure 1, index 5. |
| 5 | IN RNG (ØTINRG, ØTRNGX) | See figure 1, index 6. |
| 6 | Missile Axis Position Indicator | Displayed as part of weapon video from stores management system (SMS). The Missile Axis Position (MAP) indicator indicates missile boresight axis position relative to the guidance head position of the Walleye weapon. Provides an indication of angle-of-attack when the weapon is in flight. MAP indicator not displayed when it is inside target gate of video crosshairs. Indicator is one-half size vertically while guidance head position of weapon is being slewed by data link (Walleye Avionics Interface Schematic, A1-F18AC-740-500, WP053 00). |
| 7 | STEP (ØTSTPL) | See figure 1, index 8. |
| 8 | Pod Status Indicator | See figure 3, index 8. |
| 9 | Video Crosshairs | See figure 1, index 7. |
| 10 | DLY (ØT4PBW) | See figure 1, index 12. |
| 11 | INST (ØT5PBW) | See figure 1, index 13. |

Figure 2. Walleye I ER/DL Symbology (Sheet 2)

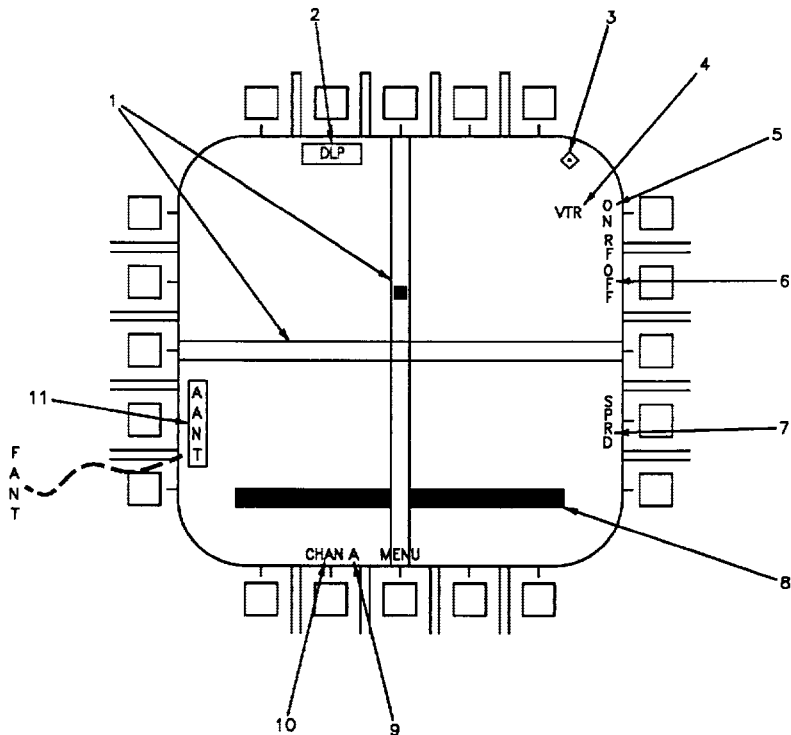


Figure 3. Walleye Data Link Pod Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | Video Crosshairs | See figure 1, index 7. |
| 2 | <div> <div>1</div> <div>2</div> </div> WEPD DL9 (ØTDLPB) | Displayed when mission computer system (MC) receives store code 71 (Walleye Data Link Pod) from stores management system (SMS). When pushbutton switch is pressed, Walleye Data Link Pod is selected and pushbutton legend is boxed (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 3 | TV Weapon TDC Symbol (ØTTTDC) | Displayed when TDC is assigned to Walleye Data Link Pod for target acquisition (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 4 | VTR (ØTVTRN) | Displayed when Walleye Data Link Pod video tape recorder is running. Video tape recorder is turned on when RF ON option (index 5) is selected and turned off when RF OFF option (index 6) is selected (Guided Weapon Control - Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 5 | RF ON (ØTJPØD) | Displayed when Walleye Data Link Pod option pushbutton is selected (index 2). Legend is boxed when selected. Selection of RF ON option causes the MC to command the Walleye Data Link Pod to transmit RF on signal to Walleye ER/DL weapon (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 6 | RF OFF (ØTJPØD) | Displayed when Walleye Data Link Pod option pushbutton has been selected (index 2). Legend is boxed when selected. Selection of RF OFF option causes the MC to command the Walleye Data Link Pod to transmit RF off signal to Walleye ER/DL weapon (Guided Weapon Control - Monitor Set AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 7 | SPRD (ØTJPØD) | Displayed when Walleye Data Link Pod option pushbutton has been selected (index 2). Selection of SPRD option causes the MC to command the Walleye Data Link Pod to spread the spectrum field of view. Spectrum can be spread only when channel F, H or J (index 10) is selected (Guided Weapon Control - Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 8 | Pod Status Indicator | Displayed as part of the weapon video. Initially displayed as white, and may be either black or white, upon command from the pod. Indicator is controlled by sensor control switch on aircraft controller grip assembly. Indicator is removed by deselecting Walleye ER/DL weapon station or when Walleye ER/DL weapon is launched. Indicates video reception status of the pod aircraft during dual aircraft mode of operation (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 9 | Pod Channel Selected (ØTWCHN) | Indicates pod data link channel (M, A, C, E, F, H, J, K) selected by CHAN option pushbutton (index 10) (Guided Weapon Control - Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |

Figure 3. Walleye Data Link Pod Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|--|------------------------------|--|
| 10 | CHAN (ØTJPØD) | Pushbutton switch selects one of five present pod data link channels or the manual frequency. Pressing CHAN pushbutton selects channels M, A, C, E, F, H, J, and K (index 9) in that order (Guided Weapon Control - Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| 11 | A ANT/F ANT (ØTJPØD, ØTANTB) | Pushbutton switch selects Aft/forward antenna on Walleye Data Link Pod. Selection of A ANT also overrides TEST option (index 7). Deselection of aft antenna (A ANT) pushbutton switch commands Walleye Data Link Pod to select forward antenna (F ANT) (Guided Weapon Control - Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |
| LEGEND | | |
| 1 Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 87X (A1-F18AC-SCM-000). | | |
| 2 Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 89A AND UP (A1-F18AC-SCM-000). | | |

Figure 3. Walleye Data Link Pod Symbology (Sheet 3)

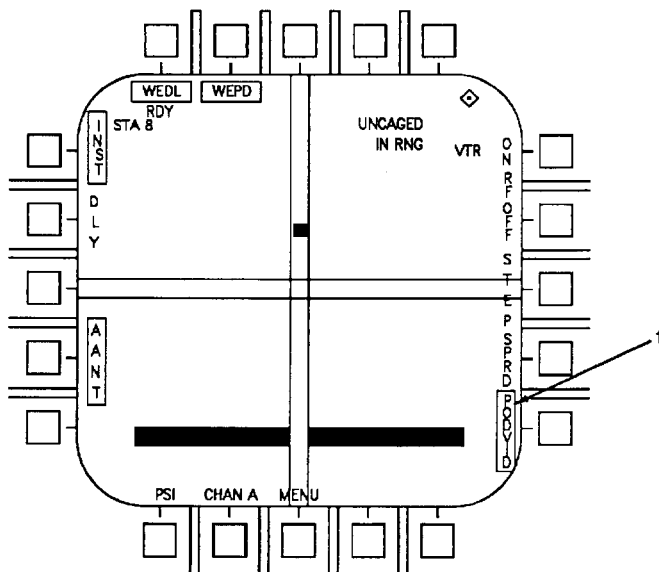


Figure 4. Walleye I ER/DL and Walleye Data Link Pod Combined Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|--|----------------------------|---|
| <div>NOTE</div> <div>For single aircraft mode of operation, the displays on figures 2 and 3 are combined. See figures 2 and 3 for display element description.</div> | | |
| 1 | PODVID (ØTVIDL) | Displayed when Walleye I ER/DL weapon and Walleye Data Link Pod are loaded on the name aircraft. When pushbutton switch is pressed, weapon video is displayed by way of the data link pod and PODVID is boxed. When PODVID is not boxed, weapon video is sent directly from the Walleye I ER/DL weapon to the digital display indicator (Guided Weapon Control-Monitor Set AN/AWW-9 Schematic, A1-F18AC-740-500, WP054 00). |

Figure 4. Walleye I ER/DL and Walleye Data Link Pod Combined Symbology (Sheet 2)

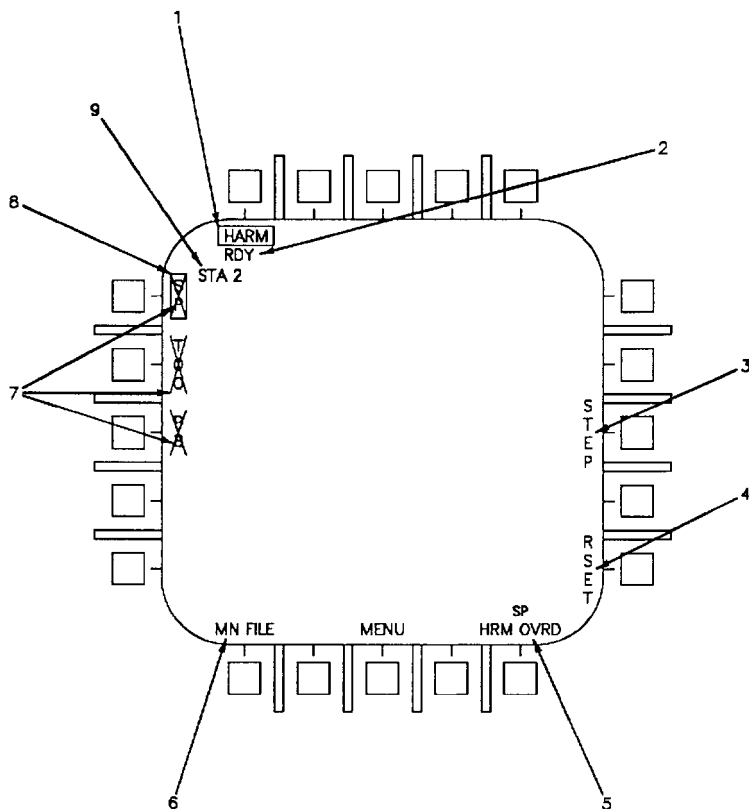


Figure 5. AGM-88 HARM Self-Protect (SP) Mode Symbology - Digital Data Computer
No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 1)

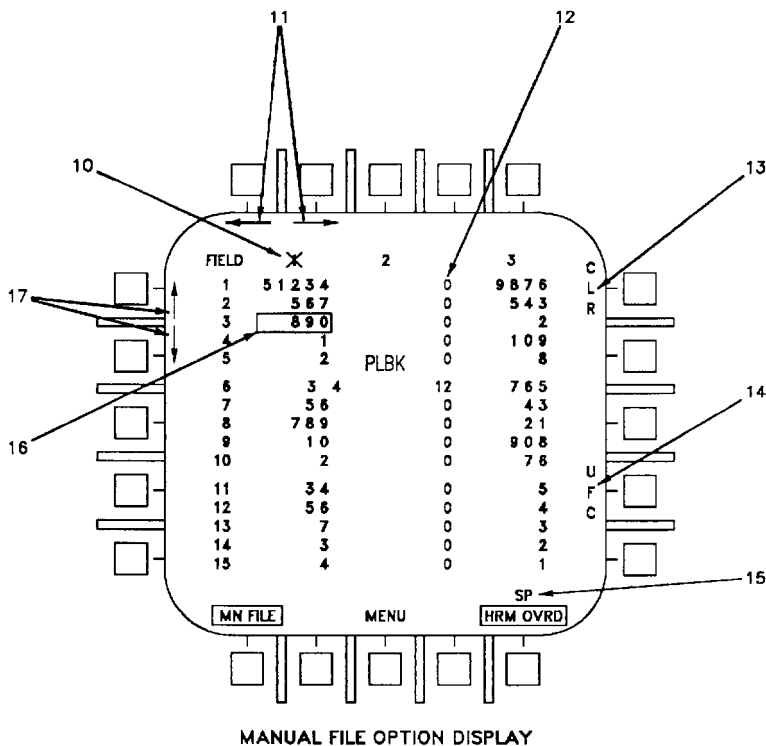


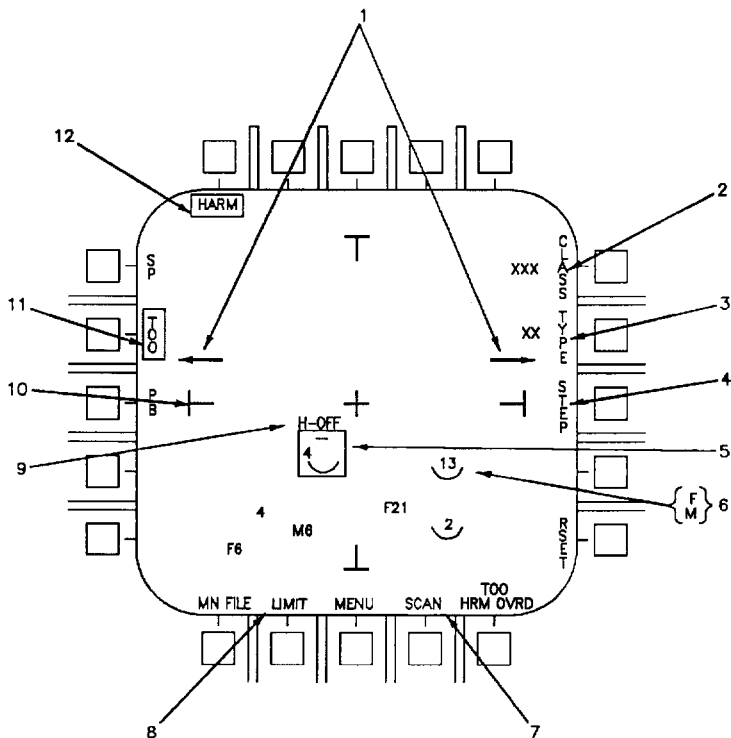
Figure 5. AGM-88 HARM Self-Protect (SP) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | HARM Legend (ØTHRML) | Pushbutton legend boxed to indicate HARM weapon is selected (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 2 | RDY (ØTHRDY, ØTHNRX) | Indicates A/G ready condition exists. An X is displayed through HARM pushbutton legend when A/G ready condition does not exist. Displayed only when HARM is selected weapon. (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode A1-F18AC-740-500, WP059 03). |
| 3 | STEP (ØTHSTP) | STEP pushbutton option provides for selection of the next highest priority HARM station if a HARM weapon is loaded aboard more than one station (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-600, WP059 03). |
| 4 | RSET (ØTRSTL) | Enables Command Launch Computer CP-1001/AWG (CLC) to select the highest priority target after another target has been sequenced by pressing HARM target sequence/FLIR FOV/RAID switch on throttle quadrant. RSET also cancels target hand-off (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode A1-F18AC-740-500, WP059 03). |
| 5 | HRM OVRD Option (ØTHHØL) | Displayed when HARM store code 64 exists from SMS. When selected, provides for override of HARM Self-Protect Pullback mode to allow for continued delivery of selected weapon without interruption. Pushbutton label is boxed when selected (AGM-88 HARM Avionic Interface Schematic - Self - Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 6 | MN FILE (ØTHBCD) | Manual target data file (MN FILE) option is displayed in HARM SP, TOO, and PB modes and boxed when selected. When selected, enables manual file option display (indices 10 thru 15). (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 7 | Degraded mode X (ØTHSPX, ØTHTØX, ØTHPBX) | An X is displayed over the degraded mode pushbutton legend. The degraded mode can be selected but the degraded cue remains for the pilot. (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 8 | SP Legend (ØTHBCD, ØTHMBY) | Displayed when HARM weapon selected. Pressing pushbutton switch enables HARM Self-Protect mode. Pushbutton legend is boxed when selected (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 9 | Station Select Indication (ØTHDIS, ØTHSTN) | Indicates weapon station that has priority HARM weapon loaded. Weapon station may be changed by pressing STEP pushbutton (index 3) (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |

Figure 5. AGM-88 HARM Self-Protect (SP) Mode Symbolology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 3)

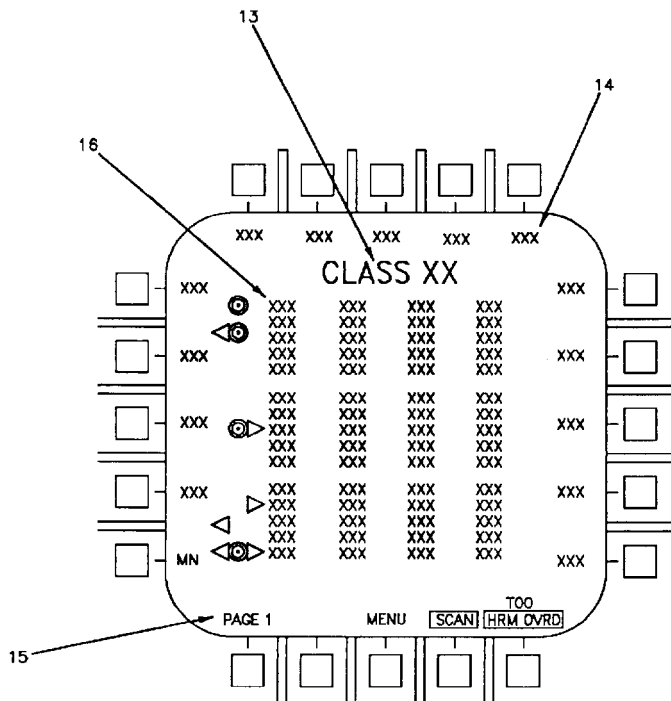
| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 10 | Manual File Invalid X (ØTHF1X, ØTHF2X, ØTHF3X) | When invalid data is detected by the Command Launch Computer CP-100/AWG (CLC) an X is superimposed over the data group number. (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 02). |
| 11 | Manual File Left/Right Arrows (ØTHMFØ) | Pushbuttons position the manual file data box (index 16) left or right (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 02). |
| 12 | Manual File Target Data (ØTHBC1, ØTHBC3, ØTHBC4, ØTHHTL) | Indicates target address/word data grouped into three sets of threats of 15 fields each. Data to be entered by way of the Electronic Equipment Control C-10380/ASQ (equipment control) is indicated by the manual file data box (index 16) (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 02). |
| 13 | CLR (ØTHCSB) | Pushbutton provides the capability to clear either one field or all the fields of one threat (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 02). |
| 14 | UFC (ØTHMFØ) | Enables equipment control for data insertion. (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 15 | HARM Mode (ØTHML) | Indicates the mode HARM is in when the CLC is on (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 03). |
| 16 | Manual File Data Box (ØTHMFB) | Indicates the field that data can be inserted for by way of equipment control. Box can be positioned by use of manual file left/right or up/down arrows (indexes 11 and 17). Manual entry box scrolls through data fields when the up/down pushbutton is pressed and held (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 02). |
| 17 | Manual File Up/Down Arrows (ØTHMFØ) | Pushbuttons position the manual file data box (index 16) up or down (AGM-88 HARM Avionic Interface Schematic - Self Protect (SP) Mode, A1-F18AC-740-500, WP059 02). |

Figure 5. AGM-88 HARM Self-Protect (SP) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 4)



TOO MODE DISPLAY

Figure 6. AGM-88 HARM Target of Opportunity (TOO) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 1)



CLASS OPTION DISPLAY
(SCAN SELECTED)

Figure 6. AGM-88 HARM Target of Opportunity (TOO) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 2)

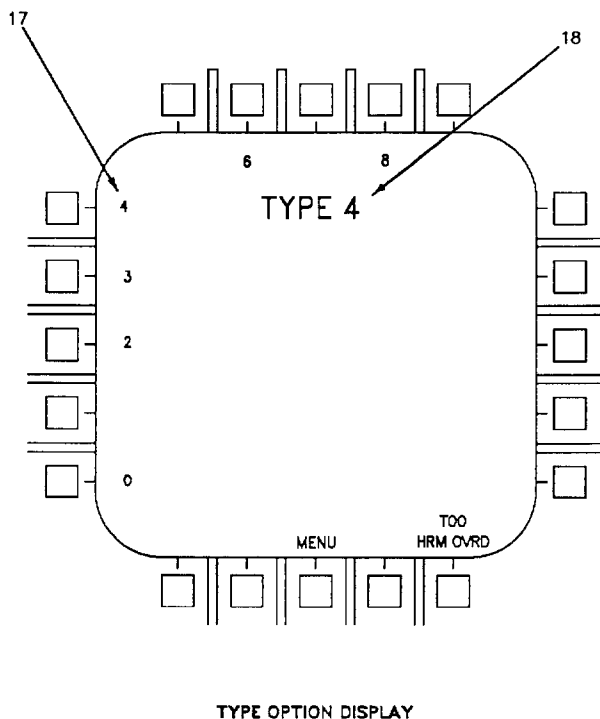
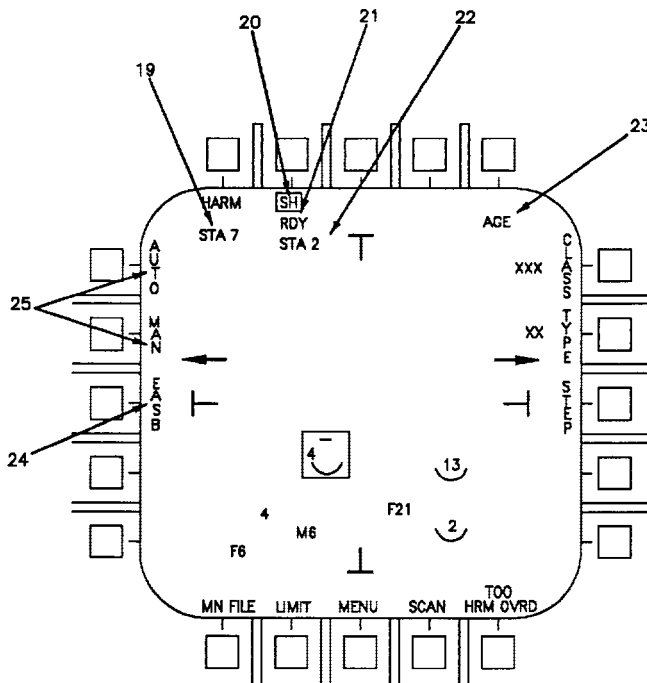


Figure 6. AGM-88 HARM Target of Opportunity (TOO) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 3)



TOO MODE DISPLAY
(SHRIKE SELECTED)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 1 | Left Out Of Field Arrow (ØTHLØF) Right Out Of Field Arrow (ØTHRØF) | Displayed when commanded by the Command Launch Computer CP-1001/AWG (CLC), when targets are detected outside the field-of-view target (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 2 | CLASS Pushbutton (ØTHMØD, ØTHCBD, ØTHCBE) | Provides for selection of target class option display. Class displayed next to pushbutton legend indicates currently selected class. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 3 | TYPE Pushbutton (ØTHBTY, ØTHTBD) | Provides for selection of target type option display. Type displayed next to pushbutton legend indicates currently selected type. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 4 | STEP (ØTHSTP) | STEP pushbutton option provides for selection of the next highest priority station for HARM or Shrike. The pushbutton option is only displayed if the selected weapon (HARM or Shrike) is loaded aboard more than one station. Not displayed in A/A HARM TOO mode AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic A1-F18AC-740-500, WP059 02 or AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |
| 5 | Priority Target (ØTHPRX) | Box displayed around highest priority target as determined by CLC. The priority target is the selected type closest to weapon boresight in azimuth. Other targets of the same type may be selected by pressing HARM target sequence/FLIR FOV/RAID switch on throttle quadrant (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 6 | TOO Target Modifiers (ØTH(01-15), ØTH(01-15)H) | Modifiers indicate friendly ambiguity (F), manual target (M), high power emitter (a line above the target), and sea based (curved line below the target) targets. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 7 | SCAN (ØTHBTG, ØTHCSB) | Displayed when HARM target-of-opportunity (TOO) pushbutton switch (index 11) is pressed. When SCAN pushbutton switch is pressed, the SCAN display, a sub-mode of the Class Option display, is displayed. All classes in the CLC are displayed with their associated activity (index 15). (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 8 | LIMIT (ØTHBTG, ØTHLMB) | Displayed when HARM TOO pushbutton switch (index 11) is pressed. When LIMIT pushbutton switch is pressed, pushbutton legend is boxed and the CLC limits the number of displayed targets to five (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 9 | H-OFF (ØTHHØX) | Displayed above TOO priority target box (index 5) when HARM priority station status is ready (hand-off has occurred). (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |

Figure 6. AGM-88 HARM Target of Opportunity (TOO) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 10 | Azimuth and Elevation Grid (ØTHLØF, ØTHRØF) | Represents the azimuth and elevation of the field-of-view, in degrees, with respect to weapon boresight. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 11 | TOO (ØTHBCD, ØTHMBY) | Displayed when HARM weapon selected. Pressing pushbutton switch enables Target-of-Opportunity (TOO) mode. Pushbutton legend is boxed when pressed (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02) |
| 12 | HARM Legend (ØTHRML) | Pushbutton legend boxed to indicate HARM weapon is selected. Not displayed in A/A HARM TOO mode (AGM-88 HARM Target of Opportunity (TOO) Mode Interface A1-F18AC-740-600, WP059 02). |
| 13 | HARM Title Data Character (Selected Class) (ØTHTTD) | Indicates existing selected target class (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic A1-F18AC-740-500, WP059 02). |
| 14 | HARM Class/Type Pushbutton (Class) (ØTHB(01-15)) | Indicates target classes on file in the Command Launch Computer CP-1001/AWG that are selectable. If more than 15 classes are stored, the PAGE pushbutton is displayed (index 15). AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 15 | PAGE Pushbutton Legend (ØTHPGL, ØTHPGN) | Displayed when more than 15 target classes/types are on file in the Command Launch Computer CP-1001/AWG. Number indicates page of target classes/types presently displayed, maximum of four pages (60 classes/types). (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 16 | HARM Scan/Class Lines and Class Activity (ØTHM (0-59)) | Indicates all classes on file in the Command Launch Computer CP-1001/AWG. The activity indicators indicate class activity out of field of view - left (left pointing triangle), class activity out of field of view - right (right pointing triangle), and class activity inside field of view (circle with a dot in center). (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 17 | HARM Class/Type Pushbuttons (Type) (ØTHB(01-15)) | Displayed when target type is on file in the Command Launch Computer CP-1001/AWG. If more than 15 types are stored, the PAGE pushbutton is displayed (index 15). When all types of the selected class are not consecutive, the pushbuttons with the undefined types will not have a type legend. When a type is selected, the display reverts to the TOO mode display. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |

Figure 6. AGM-88 HARM Target of Opportunity (TOO) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 18 | HARM Title Data Character (Selected Type) (ØTHTTD) | Indicates existing selected target type. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic A1-F18AC-740-500, WP059 02). |
| 19 | HARM Station Number (ØTHDIS, ØTHSTN) | Indicates the station number (STA X) of the priority HARM station. If HARM legend (index 12) boxed, indicates the station selected. If no HARM weapon is powered up, the legend is not displayed. (AGM-88 HARM Target of Opportunity (TOO) Mode Interface Schematic, A1-F18AC-740-500, WP059 02). |
| 20 | SH Legend (ØTHTSX) | Pushbutton legend boxed to indicate Shrike weapon is selected (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |
| 21 | RDY (ØTHRDRY, ØTHNRX) | Displayed under selected weapon (HARM legend (index 12) or SH legend (index 20) when all preparation for selected weapon has been completed. Prior to RDY display, selected weapon legend (HARM or SH) has a large X superimposed. (AGM-88 HARM Avionic Interface Schematic, A1-F18AC-740-500, WP059 00 or AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |
| 22 | Shrike Station Number (ØTDN03, ØTDN05, ØTDN07) | Indicates the station number (STA X) of the priority Shrike station. If SH legend (index 20) boxed, indicates the station selected. (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |
| 23 | AGE (ØTSIRL, ØTSIRP, ØTSIRQ) | Angle Gate Enable (AGE) cue displayed if compatible with the selected Shrike seeker head and selected with the cage/uncage switch. Selection of AGE narrows the SHRIKE field-of-view (AGM-45 SHRIKE Avionics Interface Schematic, Schematic, A1-F18AC-740-500, WP058 02). |
| 24 | EASB (ØTHM04, ØTHM05, ØTDN31, ØTDN35) | Electronic Altitude Sensor Bypass (EASB) displayed if it is a selectable Option for the type of Shrike selected. Legend is boxed when selected. (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |
| 25 | AUTO, MAN (ØTSPBW) | AUTO and Man are displayed when Shrike is selected. The applicable delivery mode is boxed when selected. (AGM-45 SHRIKE Avionics Interface Schematic, A1-F18AC-740-500, WP058 02). |

Figure 6. AGM-88 HARM Target of Opportunity (TOO) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 7)

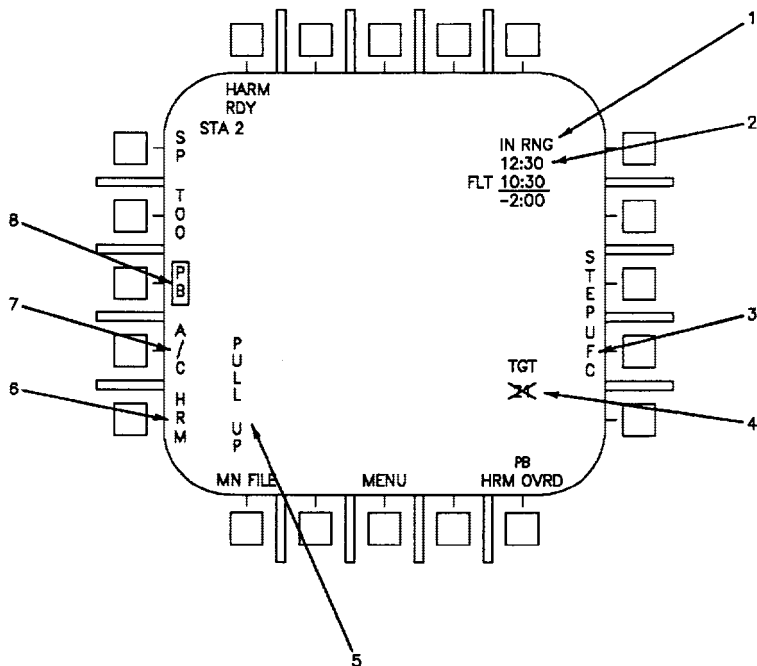


Figure 7. AGM-88 HARM Pre-Briefed (PB) Mode Symbology - Digital Data Computer
No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 1 | IN RNG, A/C RNG, HRM RNG (ØTHIRL, ØTHIRP, ØTHINQ) | IN RNG displayed when Walleye is in range or when HARM is selected weapon and in range. A/C RNG is displayed when mission computer system has computed a HARM to be in range if the aircraft executes pullup. If the HARM is in range to reach the target by executing a pullup after launch, HRM RNG is displayed. |
| 2 | Pre and Post Launch Time (ØTHIFL, ØTHIFM, ØTHIFS) | Pre launch time of flight is displayed when IN RNG cue (index 1) is displayed. When a HARM is launched, the post launch time of flight in minutes of and seconds and FLT legend are displayed under the pre and post launch time of flight. When both pre and post launch time of flight are displayed, a delta time is also displayed. |
| 3 | UFC (ØTHUFC) | Displayed in PB mode to allow for target number (index 4) entry by way of Electronic Equipment Control C-10380/ASQ (equipment control) (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 4 | Target Number (ØTHTGD, ØTHTGE, ØTHTGX) | Indicates target number (1 thru 255) entered by way of equipment control (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 5 | PULLUP (ØTHMØD) | Displayed when PB pushbutton is pressed (index 8) (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 6 | HRM (ØTHMØD, ØTHPUB) | Displayed when PB pushbutton is pressed (index 8). When selected, HRM is boxed, indicating Hot Pickle launch of missile has been selected (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 7 | A/C (ØTHMØD, ØTHPUB) | Displayed when PB pushbutton is pressed (index 8). When selected, A/C is boxed, indicating On-Angle launch of missile has been selected (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |
| 8 | PB (ØTHBCD, ØTHMBY) | Displayed when HARM weapon selected. Pressing pushbutton switch enables Pre-Briefed (PB) mode and the two launch option pushbutton legends, A/C (On-Angle launch, index 7) And HRM (Hot Pickle launch, index 6). Pushbutton legend boxed when pressed (AGM-88 HARM Pre-Briefed (PB) Mode Interface Schematic, A1-F18AC-740-500, WP059 04). |

Figure 7. AGM-88 HARM Pre-Briefed (PB) Mode Symbology - Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 85A and up (Sheet 2)

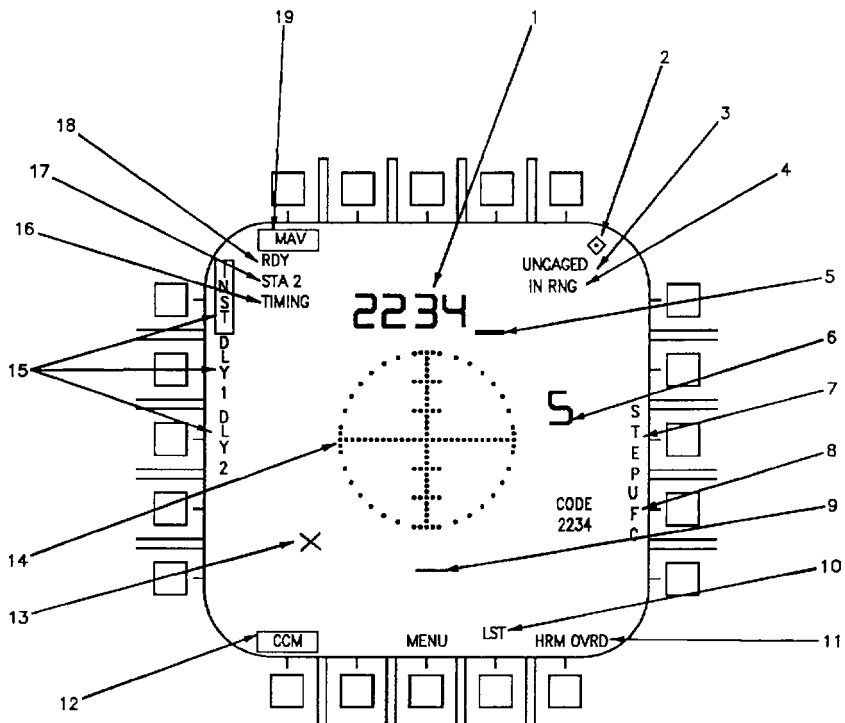


Figure 8. AGM-65 Maverick Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 1 | Laser Operating Code | Displayed as part of Maverick video and represents the entered laser operating mode (index 8) (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 2 | TV Weapon TDC Symbol (ØTTTDC) | Displayed when TDC is assigned to AGM-65 Maverick (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 3 | Maverick CAGED/ UNCAGED Notice (ØTMUNC) | Indicates caged/uncaged status of Maverick weapon. When the weapon is initially selected, CAGED is displayed. When CAGE/UNCAGE switch on right throttle grip is pressed, UNCAGED is displayed (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 4 | IN RNG (ØTINRG) | Displayed by MC when a target is designated, the MC calculates that the target is within range of the Maverick and the aircraft ground track is plus or minus 90 degrees of the designated target (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 5 | Cursor | Displayed as part of Maverick video, the cursor is an index marker that steps through the code and countermeasures positions under control of the SMS as the code data is entered (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 6 | Slave Mode | Displayed as part of Maverick video. A large "S" is displayed when the Maverick is in the slaved mode (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 7 | STEP (ØTSTPL) | If more than one Maverick weapon is loaded aboard the aircraft, the priority weapon station is selected by the SMS (index 17). Pressing the STEP pushbutton switch causes SMS to switch to the next weapon station in priority release sequence (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 8 | Laser Code Digits 1-4 (ØTLCØW, ØTLCØX) | Displayed when entered by way of equipment control. Code entered must be valid laser code. (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 9 | 20° Down Gimbal Angle Position | Displayed as part of Maverick video and represents the 20° gimbal angle position (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 10 | LST (ØTTLST) | Displayed when Laser Detector Tracker System (LDT) is tracking. LST is flashed until LDT is designated (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 11 | HRM OVRD Option (ØTHHØL) | Pushbutton switch option displayed when a HARM is loaded aboard aircraft. Allows override of HARM Self-Protect Pullback mode 60 delivery of Maverick Weapon is not interrupted. Option is boxed when selected (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |

Figure 8. AGM-65 Maverick Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 12 | CCM (ØTVSEL, ØTCCMB) | Activates the Maverick counter-countermeasures mode (CCM), when selected. CCM is commanded by the SMS and acknowledged by the Maverick missile via the video display. The pushbutton is boxed when selected (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 13 | Gimbal Angle | Displayed as part of Maverick video. Gimbal angle “X” indicates the Maverick gimbal angle with respect to the launch constraint circle. “X” changes to a solid square to indicate Maverick lock-on (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 14 | Launch Constraint Circle | Displayed as part of Maverick video. A dotted 15° radius launch constraint circle (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 15 | Electrical Fuzing Options (ØTVSEL, ØTMFBY) | Three fuzing options (instantaneous - INST, delay 1- DLY1, delay 2 - DLY2) are selectable for Maverick electrical fuzing control (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 16 | TIMING (ØTMAVT) | Displayed during Maverick gyro spin-up time. When the Maverick weapon is selected, the SMS applies power to all Maverick launchers and provides a timing signal to the MC for display of TIMING. The SMS monitors a ready status signal from the launcher and informs the MC to remove the TIMING cue when the ready status is received (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 17 | Priority Station Selected (ØTSTAW) | Indicates priority Maverick weapon station selected by the SMS (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 18 | TV Weapon Status (ØTVRDY) | Indicates A/G ready logic is satisfied in SMS and TV weapon is ready for launch (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |
| 19 | MAV (ØTVWPB) | Displayed when MC receives store code 65 (AGM-65E Maverick) from SMS. MAV is boxed when pushbutton switch is pressed indicating weapon selection. When A/G ready logic is not satisfied, an X is superimposed through MAV and RDY (index 18) is not displayed (AGM-65 Maverick Avionic Interface Schematic, A1-F18AC-740-500, WP061 04). |

Figure 8. AGM-65 Maverick Symbology (Sheet 3)

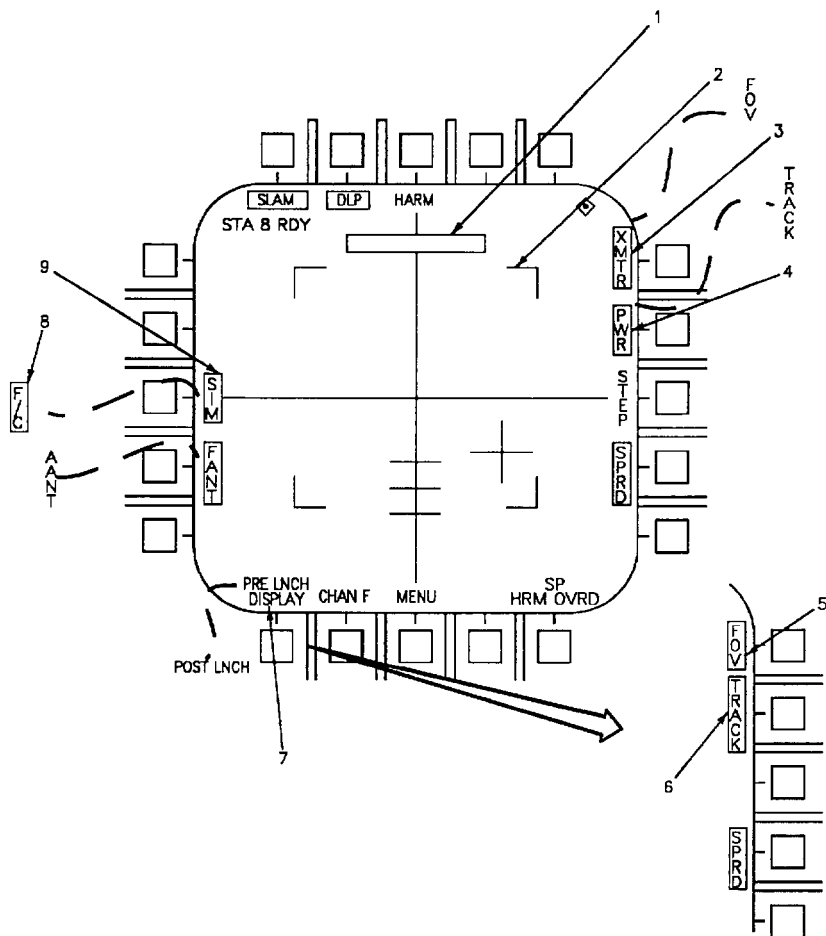


Figure 9. AGM-84E SLAM Display Symbology - Digital Data Computer No. 1/No. 2
CONFIG/IDENT Number 89A (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------------|--|
| 1 | SLAM IN-VIDEO | Indicates transmitter is on and weapon video is displayed. Data link is operating Text Messages from SLAM are displayed. |
| 2 | SLAM Seeker Symbology | <p>Narrow Field of view window is displayed when SLAM field of view is WIDE to indicate SLAM view area if narrow field of view is selected.</p> <p>Large Crosshairs - aiming cross referenced to display center.</p> <p>Small Pointing Cross - seeker position in relation to boresight.</p> <p>Tic Marks - 5° depression angle indicators.</p> |
| 3 | XMTR (ØTJPSL, ØTXMIT) | Displayed to allow selection of DLP XMTR pre-launch option. Option is selected when pushbutton is pressed. Legend is boxed while pushbutton is pressed. |
| 4 | PWR (ØTJPSL, ØTSPWR) | Displayed to allow selection of Data Link Pod (DLP) PWR pre-launch option. Option is selected when pushbutton is pressed. Legend is boxed while pushbutton is pressed. |
| 5 | FOV (ØTJPSL, ØTSFØV) | Displayed to allow selection of data link weapon field-of-view post launch option. Option is selected when pushbutton is pressed. Legend is boxed while pushbutton is pressed. Not selectable when the seeker is in track. |
| 6 | TRACK (ØTJPSL, ØTSTRK) | Displayed to allow selection of data link track post launch seeker display symbology option. Option is selected when pushbutton is pressed. Legend is boxed while pushbutton is pressed. Not selectable when the seeker is in track. |
| 7 | PRE/POST LNCH Display (ØTJPSL) | PRE LNCH legend and pre launch display format are initially displayed when a SLAM is loaded and selected. POST LNCH and the post launch display format are displayed when the SLAM is launched. If no SLAM is selected or only a Data Link Pod is aboard the display is initialized to PRE LNCH. Pressing the pushbutton toggles the PRE LNCH/POST LNCH legend and display format. |
| 8 | F/C (ØTJPSL, ØTSLFC) | Displayed to allow selection of Forced Correlate (F/C) post launch option. Option is selected when pushbutton is pressed. Legend is boxed while pushbutton is pressed. |
| 9 | SIM (ØTJPSL, ØTSSIM) | Displayed to allow selection of SIM pre-launch option. Option is selected and boxed when pushbutton is pressed. |

**Figure 9. AGM-84E SLAM Display Symbology - Digital Data Computer No. 1/No. 2
CONFIG/IDENT Number 89A (Sheet 2)**

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

FLIR DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|----------|
| Acquisition Gate (Figure 1, Index 14) | 6 |
| Airspeed (Figure 1, Index 25) | 7 |
| Airspeed and Mach Number (Figure 1, Index 25) | 7 |
| ALG (Figure 1, Index 22) | 7 |
| Altitude (Figure 1, Index 18) | 6 |
| Automatic Level/Gain (Figure 1, Index 22) | 7 |
| Azimuth Readout (Figure 1, Index 4) | 5 |
| Azimuth Steering Line (Figure 1, Index 3) | 5 |
| BLK (Figure 1, Index 24) | 5 |
| BLK/WHT Hot Polarity (Figure 1, Index 24) | 7 |
| Break-X (Figure 1, Index 23) | 7 |
| DCLTR (Figure 1, Index 19) | 7 |
| Designation Range (Figure 1, Index 13) | 7 |
| Elevation Readout (Figure 1, Index 27) | 7 |
| FLIR BIT Matrix (Figure 1, Index 15) | 6 |
| FLIR Status (Figure 1, Index 1) | 5 |
| FLIR Symbology (Figure 1) | 3 |
| FLIR TDC Symbology (Figure 1, Index 8) | 5 |
| Focus Adjustment Value (Figure 1, Index 32) | 8 |
| FOCS Adjustment (Figure 1, Index 33) | 8 |
| FOV Reticle (Figure 1, Index 26) | 7 |
| Gain Adjustment Value (Figure 1, Index 34) | 8 |
| GN Adjustment (Figure 1, Index 35) | 8 |
| GRAY (Figure 1, Index 16) | 6 |
| Gray Scale (Figure 1, Index 17) | 6 |
| Horizon Line (Figure 1, Index 9) | 5 |
| Introduction | 2 |
| Level Adjustment Value (Figure 1, Index 33) | 8 |
| LST (Figure 1, Index 20) | 7 |
| LVL Adjustment (Figure 1, Index 37) | 8 |
| Mach Number (Figure 1, Index 25) | 7 |
| MEM (Figure 1, Index 21) | 7 |
| MV TGT (Figure 1, Index 7) | 5 |
| NAR (Figure 1, Index 2) | 5 |
| Offset Reticle (Figure 1, Index 3) | 5 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| RRSLV (Figure 1, Index 12) | 6 |
| RTCL (Figure 1, Index 10) | 5 |
| TDC Symbol, FLIR (Figure 1, Index 8) | 5 |
| Time To Go (Figure 1, Index 11) | 6 |
| TRACK (Figure 1, Index 7) | 5 |
| Track Gate (Figure 1, Index 6) | 5 |
| Velocity Vector (Figure 1, Index 9) | 5 |
| Velocity Vector and Horizon Line (Figure 1, Index 9) | 5 |
| VVSLV/RRSLV (Figure 1, Index 12) | 6 |
| VVSLV (Figure 1, Index 12) | 6 |
| WHT (Figure 1, Index 24) | 7 |
| WIDE (Figure 1, Index 2) | 5 |
| WIDE/NAR (Figure 1, Index 2) | 5 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package has illustrations and descriptions of the display elements common to FLIR displays. The illustrations are not meant to represent

typical displays, but to provide general appearance and positioning of the elements which make up the FLIR displays. The descriptions may contain schematic references which show the development of the display elements.

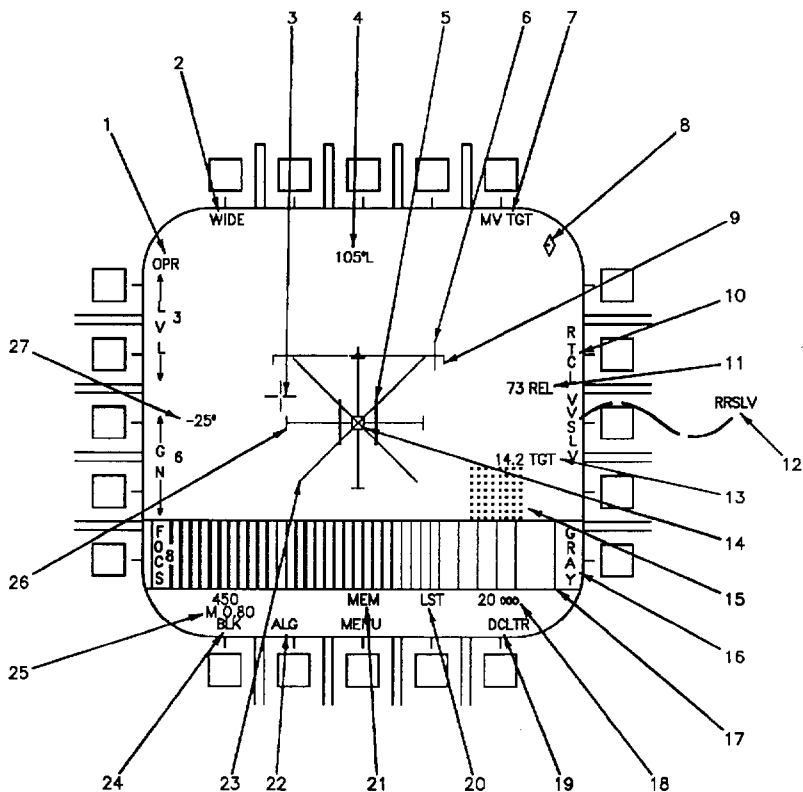


Figure 1. FLIR Symbology (Sheet 1)

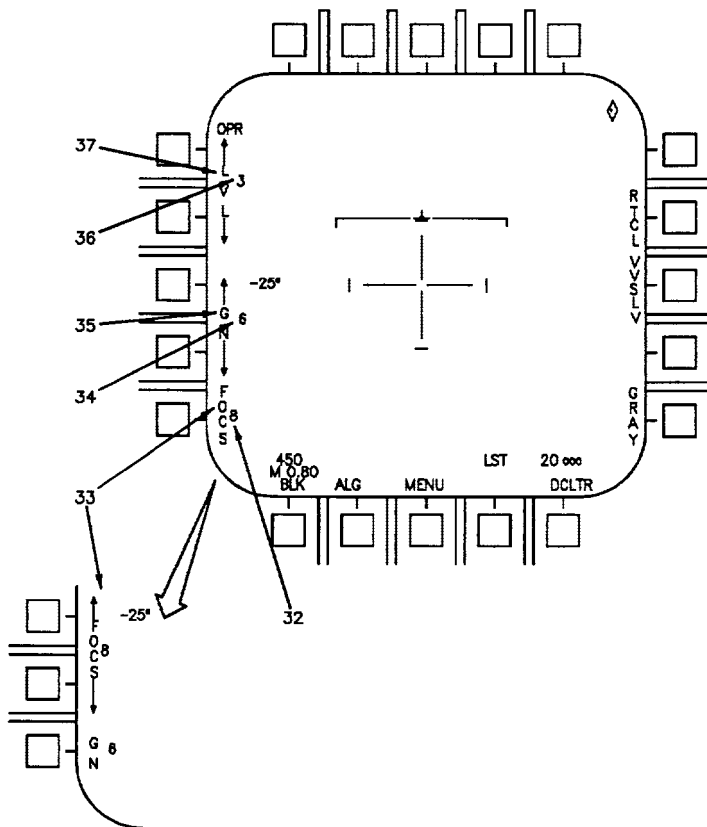


Figure 1. FLIR Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | FLIR Status (ØTFSTW) | RDY with a horizontal line superimposed through it indicates FLIR display is selected, but FLIR detectors not cooled down, gyros not up to speed, FLIR head disable switch set to DISABLE, or FLIR not communicating with MC. STBY indicates FLIR switch on SNSR pod control box panel assembly set to STBY, FLIR detectors cooled down, gyros up to speed, and head disable switch set to OFF. TEST indicates FLIR turned on and initiated BIT in progress. OPR indicates FLIR is operational (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 2 | WIDE/NAR (ØTFØVL) | WIDE or NAR (narrow) indicates field of view (FOV) currently selected. Pressing pushbutton switch or HARM target sequence/FLIR FOV/RAID switch changes field of view (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 3 | Offset Reticle | Displayed in center of FLIR video when throttle designator control (TDC) is pressed after track has been established. When offset reticle appears, it can be slowed to designate a point other than the aimpoint being tracked. Point in the center of the offset reticle is designated as the target position. MC provides update commands to FLIR to keep the offset reticle displayed over the target position (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 4 | Azimuth Readout (ØTFLAL, ØTFLAD) | Indicates FLIR pointing angle left or right (L or R) of aircraft ground track (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 5 | Track Gate | Displayed when a target is detected within the acquisition gate and the FLIR is in track. Track gate replaces the acquisition gate and automatically tracks the target (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 6 | Azimuth Steering Line (ØTCMDX) | Displayed whenever azimuth steering line displayed on HUD (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 7 | MV TGT (ØTF10L) | MV TGT displayed when aircraft master mode is a/g or nav, FLIR mode in track, and offset data is not being used. MV TGT is boxed when selected (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 8 | FLIR TDC Symbol (ØTFTDC) | Displayed when TDC is assigned to the FLIR (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 9 | Velocity Vector and Horizon Line (ØTFHLX, ØTFHLY) | Velocity vector is fixed and the horizon line moves to provide vertical flight path angle and roll attitude information. Velocity vector is finished at the edge of display when outside the display field of view. If aircraft vertical flight path angle is greater than $\pm 6^\circ$, the horizon line is limited and finished (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 10 | RTCL (ØTRETf) | Pushbutton switch enables and disables FOV reticle. When acquisition gate or track gate exists, RTCL option has no effect (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |

Figure 1. FLIR Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 11 | Time To Go (ØTTGFD, ØTTGFL) | Time to go until weapon release is displayed on the FLIR display and HUD when steering error is less than 20° (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 12 | VVSLV/ RRSLV (ØTVSLL, ØTRSL) | <p>VVSLV displayed when a/a FLIR operating mode is Velocity Vector Slaved. When selected and boxed, the FLIR is commanded to a line-of-sight (LOS) coincident with the aircraft velocity vector. FLIR exits the VVSLV mode when any of the below occur</p> <ol style="list-style-type: none"> Sensor control switch commands FLIR autotrack. VVSLV option is deselected. TDC is pressed when TDC priority is to FLIR. Radar acquires an STT target or an L&S target. <p>RRSLV displayed when a/a FLIR operating mode is Radar Slaved LOS. When selected and boxed, MC slaves the FLIR LOS coincident with radar LOS when it is in track. If radar is in STT, the FLIR LOS is slaved to the STT target. If radar is in TWS, the FLIR LOS is slaved to the L&S target. FLIR exits RRSVL mode when any of the below occur:</p> <ol style="list-style-type: none"> Radar breaks track (STT is exited or L&S is dropped). TDC is depressed when priority is to the FLIR. FLIR enters autotrack. a/a master mode is exited. |
| 13 | Designation Range (ØTRGFD, ØTRGFL) | Horizontal range to designation is displayed on FLIR display and HUD (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 14 | Acquisition Gate | Displayed when sensor control switch on aircraft controller grip assembly is pressed to command acquisition. Acquisition gate replaces FOV reticle and begins to expand. Gate expands until a trackable target is detected and sensor control switch is released to command autotrack. If FLIR does not detect a trackable target when gate expands to 80 percent of display size limit, MC will command FLIR to navigation - stabilized pointed mode and acquisition gate is replaced by the FOV reticle (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 15 | FLIR BIT MATRIX | FLIR BIT matrix is provided when GRAY pushbutton switch is pressed. The matrix is an eight row by eight column array of hexadecimal data which identifies FLIR failures. For troubleshooting, do WP007 00, A1-F18AC-744-200. |
| 16 | GRAY (ØTJFLR) | Pressing GRAY pushbutton switch provides a FLIR BIT matrix and a gray scale across the bottom of the display (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 17 | GRAY SCALE | Gray scale is provided when GRAY pushbutton switch is pressed. Scale is 10 shades of gray for adjusting digital display indicator control setting (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 18 | Altitude (ØTFALT, ØTFALU) | Barometric or radar altimeter altitude is displayed on HUD except when DCLTR pushbutton switch is pressed (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |

Figure 1. FLIR Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 19 | DCLTR (ØTJFLR, ØTDCLB) | Pressing DCLTR (declutter) pushbutton switch removes mach number, airspeed, altitude, velocity vector, horizon line, and azimuth steering line. DCLTR is boxed when selected (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 20 | LST (ØTFLST, ØTFLSU) | Displayed when laser detector tracker system (LDT) is tracking LST is flashed until LDT is designated (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-600, WP007 00). |
| 21 | MEM (ØTMEMT) | MEM (memory) is displayed when FLIR loses solid track but is in a track coast attempting to regain solid track (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 22 | ALG (ØTALGL, ØTALGB) | Provides automatic level/gain selection/deselection to FLIR when pushbutton switch is pressed. Automatic level/gain is preselected on FLIR power up (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 23 | Break-X (ØTBREX) | Displayed when displayed on HUD (HUD Display Symbology, WP007 00). |
| 24 | BLK/WHT Hot Polarity (ØTPØLL) | Displayed to indicate the polarity currently selected. Pressing pushbutton switch alternately changes FLIR display polarity between BLK (black) and WHT (white) hot (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 25 | Airspeed and Mach Number (ØTFASD, ØTFMNL, ØTFMND) | Calibrated airspeed and mach number are displayed except when DCLTR pushbutton switch is pressed (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 26 | FOV Reticle | Displayed to indicate FLIR line of sight. End bars shown indicate wide FOV. When end bars are not displayed, narrow FOV is displayed. Wide and narrow FOV selectable by WIDE/NAR FOV pushbutton switch. End bars on the wide FOV reticle indicate the size of the narrow FOV. Reticle is displayed when FLIR is turned on while on the ground or at any FLIR designation (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 27 | Elevation Readout (ØTFELL) | Indicates FLIR pointing angle above or below horizon (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 28 | Focus Value (ØTFFCN) | Displayed adjacent to FOCS option cue with a value from 0 to 9. Adjustment over the full range available unless 5.5 seconds with a 0.5 second dead band from 8 to 11 (focusing to infinity). Not displayed when ALG is selected. FOCS adjustment is set to 8 at power up. |
| 29 | FOCS Adjustment (ØTFFCL) | Displayed alternately with GN when selected with up and down arrows. Up and down arrow pushbutton switches provided for increasing or decreasing display focus. FOCS option cue and arrows are not displayed when ALG is selected. FOCS returns to GN when GN is selected or after 15 seconds when no adjustments are made in FOCS. |

Figure 1. FLIR Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 30 | Gain Value (ØTFGNN) | Displayed adjacent to GN option cue with a value from 0 to 9. Adjustment over the full range available takes 5 seconds. Not displayed when ALG is selected. GN adjustment is set to 6 at power up. |
| 31 | GN Adjustment (ØTFGNL) | Displayed alternately with FOCS when selected with up and down arrows. Up and down arrow pushbutton switches provided for increasing or decreasing display gain. GN option cue and arrows are not displayed when ALG is selected. |
| 32 | Level Value (ØTFLVN) | Displayed adjacent to LVL option cue with a value from 0 to 9. Adjustment over the full range available takes 5 seconds. Not displayed when ALG is selected. LVL adjustment is set to 3 at power up. |
| 33 | LVL Adjustment (ØTFLVL) | Displayed continuously with up and down arrows. Up and down arrow pushbutton switches provided for increasing or decreasing display level. LVL option cue and arrows are not displayed when ALG is selected. |

Figure 1. FLIR Symbology (Sheet 6)

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****FLIR DISPLAY SYMBOLOGY****EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292**

Reference Material

Fault Reporting Manual (Confidential) A1-F18AC-FRM-010/(C)

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| Airspeed (Figure 1, Index 13) | 8 |
| ALG (Figure 1, Index 11) | 8 |
| Altitude (Figure 1, Index 27) | 10 |
| Azimuth Readout (Figure 1, Index 2) | 7 |
| Azimuth Steering Line (Figure 1, Index 21) | 9 |
| BLK (Figure 1, Index 12) | 8 |
| Boresight Position Indicator (Figure 1, Index 40) | 12 |
| BST (Figure 1, Index 6) | 7 |
| Cursor (Figure 1, Index 39) | 12 |
| DCLTR (Figure 1, Index 10) | 8 |
| Elevation Readout (Figure 1, Index 3) | 7 |
| FLIR, LDT, and LST Symbolology (Figure 1) | 3 |
| FLIR Status (Figure 1, Index 1) | 7 |
| FOCS Adjustment (Figure 1, Index 14) | 8 |
| FOV Reticle (Figure 1, Index 9) | 8 |
| GN Adjustment (Figure 1, Index 15) | 9 |
| HAFU/Rank Number (Figure 1, Index 35) | 11 |
| GRAY (Figure 1, Index 7) | 7 |
| HI (Figure 1, Index 22) | 9 |
| Horizon Line (Figure 1, Index 8) | 8 |
| Inhibit Envelope Indication (Figure 1, Index 33) | 11 |
| Introduction | 2 |
| L&S (Figure 1, Index 6) | 7 |
| Laser ARM/Firing Status Indicator (Figure 1, Index 31) | 11 |
| Laser Code Readout (Figure 1, Index 6) | 7 |
| LO (Figure 1, Index 22) | 9 |
| LST (Figure 1, Index 28) | 10 |
| LDT (Figure 1, Index 29) | 10 |
| LTD/R Laser Code (Figure 1, Index 7) | 7 |
| LVL Adjustment (Figure 1, Index 17) | 9 |
| Mach Number (Figure 1, Index 13) | 8 |

Alphabetical Index (Continued)

| Subject | Page No. |
|--|----------|
| MEM Cue (Figure 1, Index 30) | 11 |
| MV TGT (Figure 1, Index 23) | 10 |
| NAR (Figure 1, Index 20) | 9 |
| Offset Reticle (Figure 1, Index 24) | 10 |
| Scan Center Indicator (Figure 1, Index 31) | 11 |
| RTCL (Figure 1, Index 3) | 7 |
| Scan Position Indicator (Figure 1, Index 31) | 11 |
| Scan Volume Option (Figure 1, Index 34) | 11 |
| SLAVE (Figure 1, Index 6) | 7 |
| Snapshot HAFU (Figure 1, Index 36) | 11 |
| Snapshot Passive Range (Figure 1, Index 37) | 11 |
| Snapshot Video (Figure 1, Index 38) | 12 |
| Synthetic Video (Figure 41, Index 38) | 12 |
| Target Triangle (Figure 1, Index 18) | 9 |
| TDC Assignment Symbol (Figure 1, Index 4) | 7 |
| TDC Diamond (Figure 1, Index 4) | 7 |
| TRIG (Figure 1, Index 5) | 7 |
| TWS (Figure 1, Index 19) | 9 |
| UFC (Figure 1, Index 6) | 7 |
| Velocity Vector (Figure 1, Index 8) | 8 |
| VVSLV (Figure 1, Index 25) | 10 |
| WFOV (Figure 1, Index 20) | 9 |
| WHT (Figure 1, Index 13) | 8 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package has illustrations and descriptions of the display elements common to FLIR displays. The illustrations are not meant to represent

typical displays, but to provide general appearance and positioning of the elements which make up the FLIR displays. The descriptions may contain schematic references which show the development of the display elements.

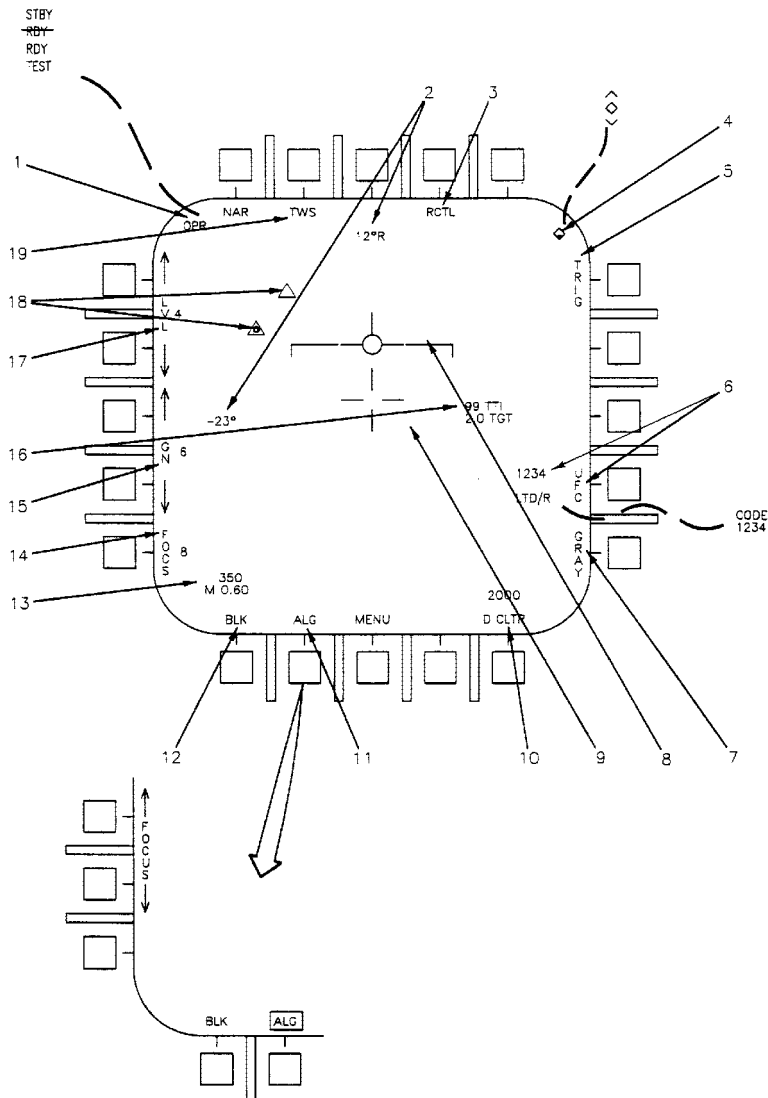


Figure 1. FLIR, LDT/R and LST Symbology (Sheet 1)

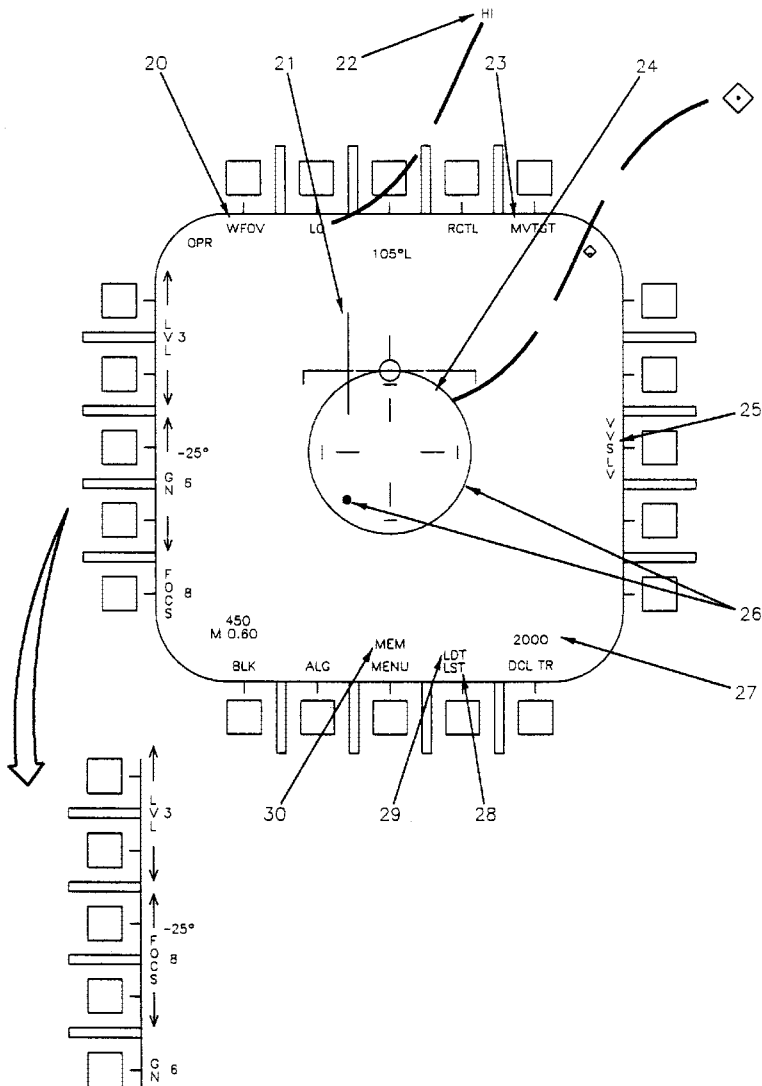


Figure 1. FLIR, LDT/R and LST Symbology (Sheet 2)

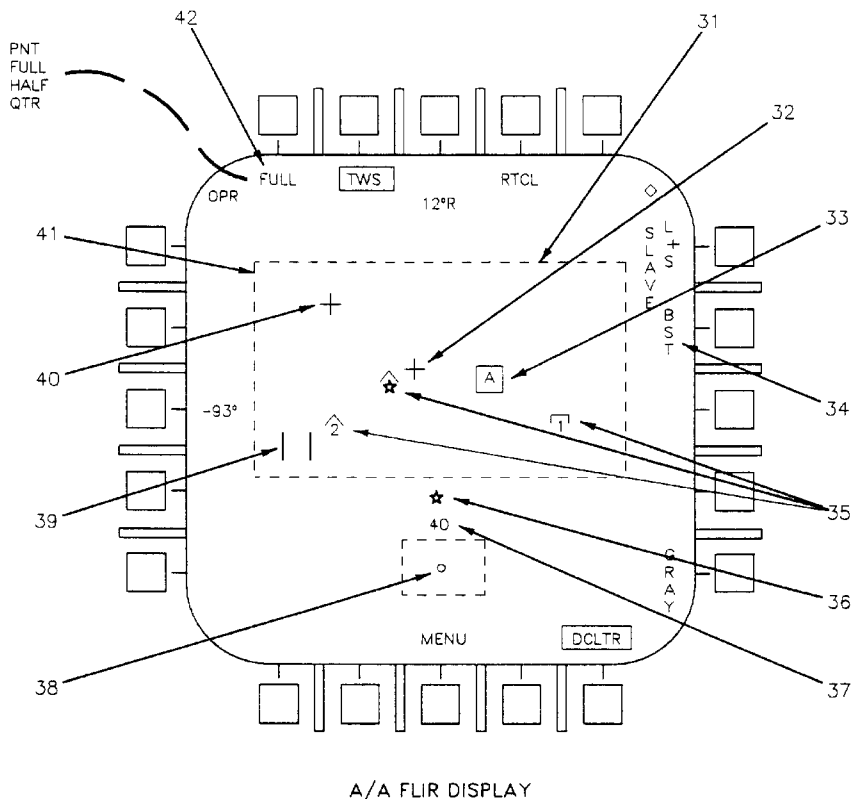


Figure 1. FLIR, LDT/R and LST Symbology (Sheet 3)

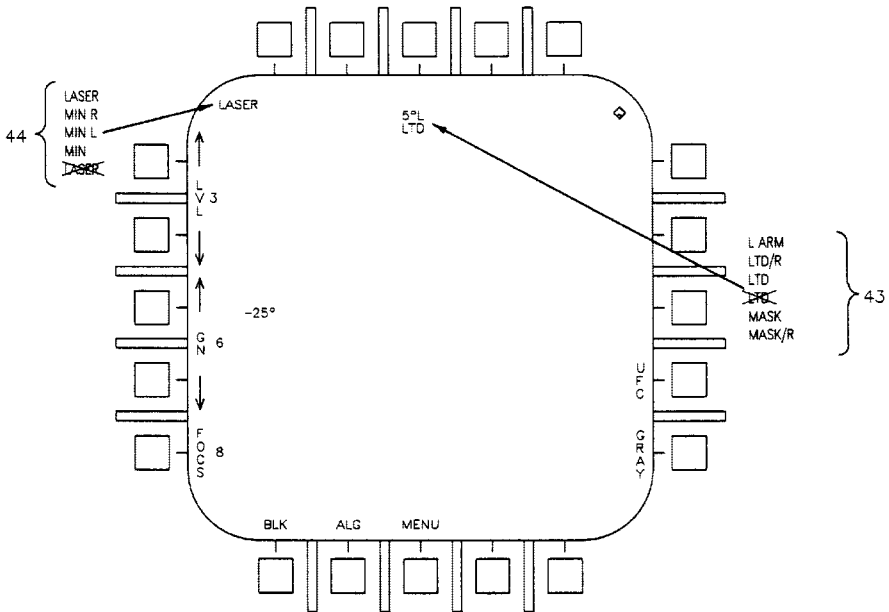


Figure 1. FLIR, LDT/R and LST Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 1 | FLIR Status | RDY is displayed with a horizontal line superimposed over it. When the (FLIR) power switch is set to STBY, it indicates FLIR detectors not cooled down, gyros not up to speed, and/or disable switch set to DISABLE. RDY is also displayed if FLIR not communicating with Digital Data Computer while FLIR display is selected. STBY indicates FLIR switch on SNSR pod control box panel assembly set to STBY, FLIR detectors cooled down, gyros up to speed, and disable switch set to OFF. TEST indicates FLIR power up BIT or initiated BIT in progress, OPR indicates FLIR is on and system is fully operational (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 2 | Azimuth Readout (FLIR) | Indicates FLIR pointing angle left or right (L or R) of aircraft ground track (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| | Elevation Readout (FLIR) | Indicates FLIR pointing angle above or below horizon (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 3 | RTCL (FLIR) | Pushbutton switch enables and disables FOV reticle. When acquisition gate of track gate exists (autotrack), RTCL option has no effect. RTCL option is never boxed but initializes selected at power-up with weight on wheels. Subsequent changes to reticle status can only be made after selecting the RTCL pushbutton switch (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 4 | TDC Diamond | Displayed when TDC is assigned to the FLIR (LTD/R Mode Selection and Control Functional Schematic, A1-F18AC-744-500, WP011 00). |
| 5 | TRIG (LTD/R) | When the LDT/R is armed, the TRIG option is available. Selecting the TRIG option enables the gun trigger for manual laser firing and deselects A/G gun or hot gun. The gun option will be removed from the stores display. When the TRIG option is unboxed on the FLIR format, manual laser fire is disabled and the gun option returns to the stores display. |
| 6 | UFC and Laser Code Readout (LST or LTD/R) | If a Laser Spot Tracker or Laser Target Designator/Ranger (LTD/R) is installed on the aircraft, the UFC option is displayed. The UFC option selects the UFC for entry of laser codes needed by these hardware items. When a code is entered, it is displayed alongside the UFC option (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 7 | GRAY (FLIR) | When the GRAY pushbutton is pressed, a FLIR BIT matrix and a gray scale are displayed across the bottom of the display (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |

Figure 1. FLIR, LDT/R and LST Symbology (Sheet 5)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------------|---|
| 8 | Velocity Vector and Horizon Line | The velocity vector is at a fixed position and the horizon line moves to provide vertical flight path angle and roll attitude information. The velocity vector is flashed at the edge of display when outside the display field of view. When the aircraft vertical flight path angle is greater than, plus or minus 6 degrees, the horizon line is limited and flashed (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 9 | FOV Reticle (FLIR) | The FOV (field-of-view) Reticle marks the center of the current FOV. The wide FOV has bars at the outer edge of each line. These edge bars on the wide FOV reticle approximately encompass a 3 degree square and indicate the imagery that would be available in the narrow FOV. The narrow field-of-view reticle is shown (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 10 | DCLTR | Pressing DCLTR (declutter) pushbutton switch removes mach number, airspeed, altitude, velocity vector, horizon line, and azimuth steering line. DCLTR boxed when selected. For Digital Data Computer Config/Ident 09C and up, A1-F18AC-SCM-000, if laser codes have been entered via the UFC, these codes and their associated legends will be removed (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 11 | ALG (FLIR) | When the option is selected, the FLIR automatically analyzes the video scene within its FOV and then adjusts the level and gain values to the optimum settings. The FLIR will continuously adjust the level and gain as long as the option is selected. When selected, the ALG option is boxed, and the LVL and GN options are not available. This option is not available when the FLIR is in the TWS mode. The ALG function is initialized on at power-up (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 12 | BLK (FLIR) | Selects white hot (WHT) and black hot (BLK) polarities. The acronym which is displayed indicates the currently active video polarity setting of the FLIR. The polarity option is not available in the TWS mode (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 13 | Airspeed and Mach Number | Calibrated airspeed and mach number are displayed except when DCLTR pushbutton switch is pressed (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 14 | FOCS (FLIR) | Selecting FOCS option switches FOCS with GN. The up and down arrows can then be used to focus the FLIR display. FOCS returns to GN when GN is selected or after 15 seconds when no focus adjustments are made. The FLIR initializes the focus to 8 at power-up (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |

Figure 1. FLIR, LDT/R and LST Symbology (Sheet 6)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--------------------------------|--|
| 15 | GN (FLIR) | Gain value is displayed adjacent to GN option cue with a value from 0 to 9. Not displayed when ALG is selected. GN adjustment is set to 6 at power-up (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 16 | ## TTI (Time to Impact) (FLIR) | Displayed at the tactical or simulated release of any A/G ballistic weapon (except GBU-24B/B) in AUTO, FD, or CCIP mode. Time is based on the time of fall of the first weapon released and counts down from 99 seconds. If TTI is less than 128 seconds but greater than 99 seconds, 99 is displayed until TTI is less than 99. If TTI is greater than 128 seconds, a (delta symbol) TTI is displayed and no count is done. |
| 17 | LVL (FLIR) | The level value is displayed adjacent to the LVL option cue with a value from 0 to 9. Adjustment is continuous while pushbutton is held. Not displayed when ALG is selected. LVL adjustment is set to 3 at power-up (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 18 | Target Triangles (FLIR) | Triangles are displayed -to indicate the position of FLIR trackfiles. Triangles are displayed only when the reticle option is selected ON. |
| 19 | TWS (FLIR) | TWS mode option allows the aircrew to transition between TWS and Pointed modes. When TWS is selected, the option is boxed. Subsequent selection of the option deselects and unboxes TWS, which commands the FLIR to Pointed mode. Upon entry into the A/A mode, the FLIR initializes to TWS, with the pointed scan volume selected (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 20 | WFOV/NAR (FLIR) | Displayed to indicate field of view (FOV) currently selected. Wide FOV is 12 by 12 and narrow FOV is 3 by 3. WIDE or NAR is HOTAS selectable in AZ/EL by the TDC. WIDE or NAR is HOTASable in NAV and A/G modes with the RAID/FOV switch on the throttle if priority is not assigned to the radar. Maverick is not selected, and HARM is not selected, pickled, or in self-protect pullback mode. The FOV is initialized to NAR at power-up with weight on wheels (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 21 | Azimuth Steering Line | Displayed when an azimuth steering line displayed on HUD (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 22 | LO/HI (LTD/R) | Allows selection of LTD/R fire altitude limit to reduce the possibility of hardware damage due to operating altitude limitations. Displayed when A/G FLIR format is displayed. Pushbutton toggles LO/HI selection. LO represents an altitude limit of 25,000 feet; HI, a limit of 35,000 feet. |

Figure 1. FLIR, LDT/R and LST Symbology (Sheet 7)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 23 | MVTGT (FLIR) | When the FLIR enters autotrack, the MV TGT option is displayed. When selected, the FLIR calculates apparent target velocities and reports them to the MC. The MC uses this information for weapon delivery calculations and for displaying attack symbology. Selecting this option also helps the FLIR reacquire a moving target during memory track. |
| 24 | Offset Reticle (FLIR) | Appears in the center of the FLIR video when the throttle designator control (TDC) pushbutton switch is pressed after track has been established. After offset reticle has appeared, offset reticle can be dewed to designate a point in the FLIR video other than the aimpoint being tracked. The point in the center of the offset reticle is designated as the target position. The Digital Data Computer provides update commands to the FLIR to keep the offset reticle displayed over the target position (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 25 | VVSLV (FLIR) | This option slaves the FLIR LOS to the aircraft velocity vector. The VVSLV option is boxed when selected and remains boxed until the option is deselected or until a designation is done. While the FLIR LOS is slaved to the velocity vector, the horizon line on the FLIR format is enlarged and the velocity vector symbol is moved to the center of the format. When VVSLV is selected, the FLIR reticle is initialized off. When VVSLV mode is exited or any designation is done, the FLIR reticle is initialized on. If no velocity vector is displayed on the HUD, because velocities and INS attitude invalid, the FLIR is snowplowed at the last commanded FLIR LOS in A/G and NAV master modes (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 26 | Laser Inhibit Warning Indicator (LTD/R) | Warning cue is displayed on the FLIR format when the LTD/R is ARMED and an A/G designation exists. The circle is used as a simple representation of the complex inhibit envelope, and the dot is used to represent the relative position of the laser LOS with respect to the edge of the inhibit envelope (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 27 | Altitude | Barometric or radar altimeter altitude is displayed whenever displayed on HUD except when DCLTR pushbutton is pressed (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, W7007 00). |
| 28 | LST (LTD/R) | Displayed when Laser Detector Tracker System (LDT) is tracking. LST is flashed until LDT is designated (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 29 | LDT (LTD/R) | The LDT cue is displayed when the Laser Detector Tracker is tracking a properly coded laser illuminated target. The indication is flashed until a LDT designation is done. The indication will start to flash again if the LDT loses track. |

Figure 1. FLIR, LDT/R and LST Symbology (Sheet 8)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 30 | MEM Cue (FLIR) | The MEM cue is displayed when the FLIR is in autotrack or scene track mode and the target that is being tracked becomes obscured or is lost. At this point, the FLIR will automatically go into memory track and try to reacquire the target. If the FLIR takes longer than three seconds to reacquire the target, the MC will terminate the autotrack mode and either command the FLIR to stabilized pointed mode (AN/AAS-38 AND AN/AAS-38A) or command the FLIR to scene track acquisition (AN/AAS-38B). If the FLIR takes longer than 3 seconds to reacquire the scene track target (AN/AAS-38B), the MC will terminate the scene track mode and command the FLIR to stabilized pointed mode (IR Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 31 | Scan Position Indicator (A/A FLIR) | A scan position indicator is displayed at the top of the synthetic video. The indicator moves from right to left as the FLIR scans the top row of the scan pattern and from left to right as the FLIR scans the bottom row. The triangle does not move if the FLIR is not changing stare positions, which may indicate that the TWS mode has failed. |
| 32 | Scan Center Indicator (A/A FLIR) | A cross is displayed in the synthetic video at the center of the scan. |
| 33 | Target Box/Priority Indicator (A/A FLIR) | FLIR targets which do not have an associated MSI trackfile are displayed as an alphabetical symbol (A - H) surrounded by a box with the highest priority non-MSI target assigned the A designation, the second highest the B, and continuing through H. |
| 34 | L/S BST (Slave) (FLIR) | When the scan centering cross is slewed over the MSI trackfile on the AZ/EL FLIR format and the TDC is released, the FLIR LOS is continuously directed toward that trackfile. When this is done the MC uses the MSI trackfile slave LOS to determine the LOS of the FLIR. The FLIR is commanded to point at the LOS of the MSI trackfile and the SLAVE option is boxed on both the AZ/EL and FLIR formats (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 35 | HAFU/Rank Number (A/A FLIR) | Information on up to 8 FLIR targets may be displayed in the FLIR synthetic video. The FLIR displays the rank, HAFU, and designation type of any FLIR targets which have associated MSI trackfiles. |
| 36 | Snapshot HAFU (A/A FLIR) | The HAFU symbol representing the target trackfile being displayed in the snapshot is displayed. If the target does not have an MSI trackfile, a rectangle is displayed. If the trackfile is an L&S or DT2 target, the appropriate designation symbol (star/diamond) is displayed. |
| 37 | Snapshot Passive Range (A/A FLIR) | When a snapshot is displayed and the FLIR has determined a valid passive range, the range is displayed in nautical miles. The range is used for display only and is not related to the passive range computed and used by MSI. |

Figure 1. FLIR, LDT/R and LST Symbology (Sheet 9)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 38 | Snapshot Video (A/A FLIR) | A 60 by 60 pixel video snapshot is displayed below the synthetic video when a target is under the cursor. The video for the L&S target is displayed if there is no target under the cursor but the FLIR target. has been associated with the L&S. The bottom of the snapshot video may be covered by other displays when DCLTR is not selected. |
| 39 | Cursor (A/A FLIR) | A cursor is displayed when the TDC is assigned to the FLIR and a TWS scanning mode is selected. When a target is placed under the cursor and the FLIR target has been associated with an MSI trackfile the mach and altitude, if valid, associated with the trackfile are displayed to the left and right of the cursor. |
| 40 | Boresight Position Indicator (A/A FLIR) | A symbol is displayed in the synthetic video to indicate the FLIR boresight position relative to the scan center. If the scan center is at boresight, the boresight indicator is not displayed because it is in the same location as the scan center cross. |
| 41 | Synthetic Video (A/A FLIR) | A rectangle of synthetic video is displayed for FLIR scanning TWS modes. The display is the same size regardless of the selected scan volume and represents the full area scanned by the FLIR. The elevation scan width is ± 3 covering the two elevation stare positions used for each of the scan volume options. For FULL scan the azimuth display represents 8 columns of overlapping 3 stare cones totaling approximately ± 10 from the scan center. HALF is 4 columns which display ± 5 , and QTR is 2 columns which display ± 3 . |
| 42 | Scan Volume Option (A/A FLIR) | Upon entry into the TWS mode, the scan volume option is set to PNT (point). Subsequent selections cycle the FLIR through FULL, HALF, and QTR (quarter) scan options. |
| 43 | Laser ARM/Firing Status indicator (LTD/R) | <p>The cues are displayed to indicate the current operating status of the LTD/R. LARM indicates the LTD/R is armed, but not firing. As soon as the laser starts firing and its range is both valid and reasonable, the LTD/R cue is displayed and flashed at a 5 Hz rate. If the laser determined range is not valid or reasonable while the laser is firing, the LTD cue is displayed.</p> <p>When the laser is within an area which indicates that the envelope inhibit is about to occur the flashing MASK cue is displayed if the laser is firing or MASK/R is displayed if the laser is firing and reasonable range data is being developed. In the event that the LTD/R is being inhibited by the MC, the LTD cue is X'ed MASK is displayed not flashing</p> <p>(LTD/R Mode Selection and Control Functional Schematic, A1-F18AC-744-500, WP011 00).</p> |
| 44 | Inhibit Envelope Indication (LTD/R) | <p>LASER is displayed when the Digital Data Computer inhibits the LTD/R due to an unanalyzed store, or a load fault exists. MIN L is displayed when laser has minimum firing area to the left. MIN R is displayed when laser has minimum firing area to the right. MIN is displayed when laser has minimum firing area to both left and right. LASER is displayed when laser has maximum firing area</p> <p>(LTD/R Mode Selection and Control Functional Schematic, A1-F18AC-744-500, WP011 00).</p> |

Figure 1. FLIR, LDT/R and LST Symbology (Sheet 10)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

LDT/CAM DISPLAY SYMBOLOGY

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|----------|
| CAGE (Figure 1, Index 8) | 4 |
| CAM (Figure 1, Index 3) | 4 |
| CAM Not Ready Indication (Figure 1, Index 4) | 4 |
| Code Invalid X, LDT (Figure 1, Index 11) | 5 |
| Depression Limit Digits (Figure 1, Index 13) | 5 |
| Elevation Digits, LDT (Figure 1, Index 15) | 5 |
| Frames Remaining (Figure 1, Index 6) | 4 |
| HUD Scan Option (Figure 1, Index 16) | 5 |
| Introduction | 2 |
| Invalid X, LDT Code (Figure 1, Index 11) | 5 |
| LDT (Figure 1, Index 1) | 4 |
| LDT Azimuth Digits (Figure 1, Index 2) | 4 |
| LDT Azimuth Digits and Direction (Figure 1, Index 2) | 4 |
| LDT Azimuth Direction (Figure 1, Index 2) | 4 |
| LDT Code Digits 1-4 (Figure 1, Index 10) | 5 |
| LDT Code Invalid X (Figure 1, Index 11) | 5 |
| LDT Elevation Digits (Figure 1, Index 15) | 5 |
| LDT Not Ready Indication (Figure 1, Index 17) | 5 |
| LDT TDC Symbol (Figure 1, Index 5) | 4 |
| LDT/CAM Symbology (Figure 1) | 5 |
| LIMIT (Figure 1, Index 13) | 5 |
| LIMIT and Depression Limit Digits (Figure 1, Index 13) | 5 |
| LST (Figure 1, Index 1) | 4 |
| MANUAL (Figure 1, Index 7) | 4 |
| Not Ready Indication, CAM (Figure 1, Index 4) | 4 |
| Not Ready Indication LDT (Figure 1, Index 17) | 5 |
| Range Units (Figure 1, Index 14) | 5 |
| Scan Center Range Digits (Figure 1, Index 14) | 5 |
| Scan Center Range Digits and Range Units (Figure 1, Index 14) | 5 |
| Scan Option, WIDE/HUD (Figure 1, Index 16) | 5 |
| TDC Symbol, LDT (Figure 1, Index 5) | 4 |
| TRACK (Figure 1, Index 12) | 5 |
| UFC (Figure 1, Index 9) | 5 |
| WIDE Scan Option (Figure 1, Index 16) | 5 |
| WIDE/HUD Scan Option (Figure 1, Index 16) | 5 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package has illustrations and descriptions of the display elements common to LDT/CAM displays. The illustrations are not meant to represent

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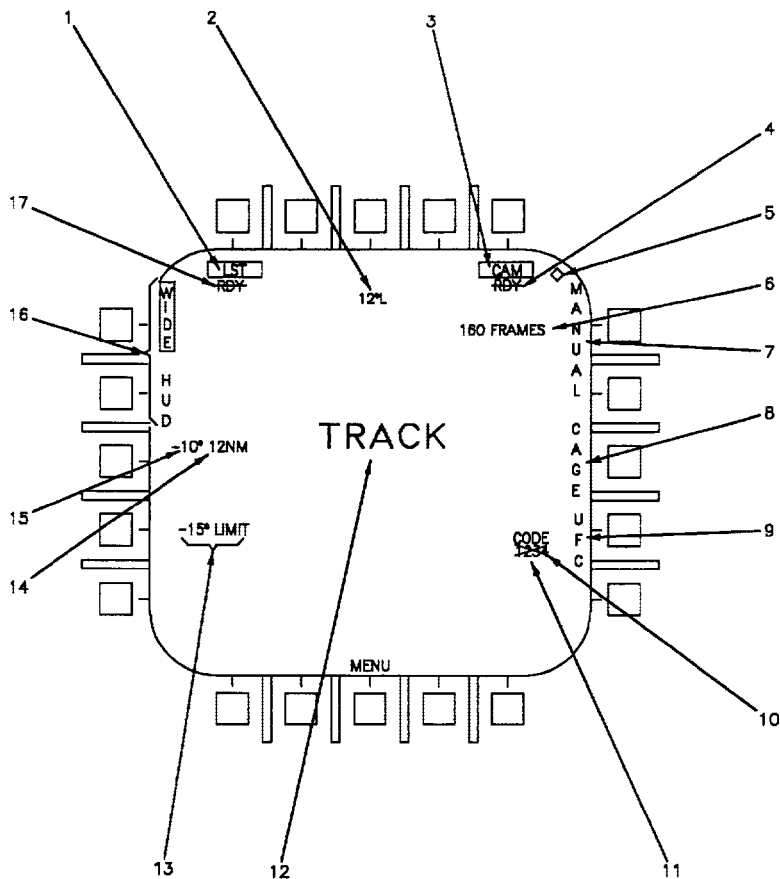


Figure 1. LDT/CAM Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 1 | LST (ØTLSET, ØTLPB) | Displayed when LDT/CAM pod is aboard aircraft and communicating with the mission computer system (MC). LST pushbutton switch commands MC to turn the LDT detector on and off. LDT is boxed when detector is on (LST Power Control Functional Schematic, A1-F18AC-743-600, WP005 00). |
| 2 | LDT Azimuth Digits and Direction (ØTLTAW, ØTLTAD) | Provides the displacement of the aircraft ground track left (L) or right (R) of the center of the LDT scan pattern (Scan Center Display Functional Schematic, A1-F18AC-743-500, WP006 00). |
| 3 | CAM (ØTCSET, ØTSCBB) | Displayed when LDT/CAM pod is aboard aircraft and communicating with the MC. CAM pushbutton switch commands MC to turn the strike camera system (CAM) on and off. CAM is boxed when camera is on and there is film in the camera. CAM will turn off (unboxed) when camera is out of film. (SCAM System Power Control Schematic, A1-F18AC-743-500, WP012 00). |
| 4 | CAM Not Ready Indication (ØTCAMS) | Displayed during two minute warmup when CAM is turned on SCAM System Power Control Schematic, A1-F18AC-749-500, WP012 00). |
| 5 | LDT TDC Symbol (ØTLTDC) | TDC symbol displayed when the TDC is assigned to the LDT (Search Processing Functional Schematic, A1-F18AC-743-500, WP008 00). |
| 6 | Frames Remaining (ØTFRMW) | Provides frames remaining count of CAM Initialized at 160 frames when LDT/CAM pod is turned on. Frame count decrements as pictures are taken. The MC commands "XXX" display for the count when the end-of-film discrete is received from the CAM. When frame count reaches zero before the end-of-film discrete is received, count remains zero and pictures continue to be taken until end-of-film discrete is received (SCAM System Power Control Schematic, A1-F18AC-743-500, WP012 00). |
| 7 | MANUAL (ØTCSET) | Displayed when LDT/CAM pod is aboard aircraft and communicating with the MC. When pushbutton is pressed, MC commands strike camera to unstow and take photographs at the rate of one frame per second. When pushbutton is released, the strike camera will stow after 30 seconds if no further photographs are commanded. If pushbutton is released before a photograph is taken, the sequence will continue until one frame is taken (SCAM Control Schematic, A1-F18AC-743-500, WP011 00). |
| 8 | CAGE (ØTLCAG) | When pushbutton is pressed, LDT is initialized in wide scan pattern. Wide scan pattern is centered in azimuth along the aircraft ground track. In elevation, the center of the pattern is initialized to 8 nautical miles horizontal range or 3° below the horizon, whichever is the steeper depression angle. CAGE not displayed when offset aimpoint (OAP) or target is designated, the HUD scan pattern is selected (index 16), or in A/A master mode (LST Power Control Functional Schematic, A1-F18AC-743-500, WP005 00). |

Figure 1. LDT/CAM Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 9 | UFC (ØTLUFC) | Displayed when LDT/CAM pod is aboard aircraft and communicating with the MC. UFC pushbutton selects Electronic Equipment Control C-10380/ASQ (equipment control) for entry of the LDT code (index 10) (Laser Code Entry and Display Functional Schematic, A1-F18AC-743-500, WP009 00). |
| 10 | LDT Code Digits 1 - 4 (ØTLCØW, ØTLCØX) | Displayed when entered by way of equipment control. Code entered must be between 1111 and 1788 (Laser Code Entry and Display Functional Schematic, A1-F18AC-743-500, WP009 00). |
| 11 | LDT Code Invalid X (ØTLCWX) | X is displayed when LDT code (index 10) is invalid (Laser Entry and Display Functional Schematic, A1-F18AC-743-500, WP009 00). |
| 12 | TRACK (ØTLTRK) | Displayed when LDT is tracking a target (Acquisition and Track Functional Schematic, A1-F18AC-743-500, WP010 00). |
| 13 | LIMIT and Depression Limit Digits (ØTLDDL, ØTLDLW) | Display indicates the steepest depression angle the center of the wide scan pattern can be set without having areas of omission (holes) in the pattern on the ground angle is calculated number which changes depending on altitude, ground speed, and LDT code (index 11) selected (Depression Limit Displays Functional Schematic, A1-F18AC-743-504 WP007 00). |
| 14 | Scan Center Range Digits and Range Units (ØTLRGW, ØTLGRX) | Display indicates calculated horizontal range (99 nautical miles maximum) to the center of the scan pattern. When LDT is tracking display indicates horizontal range to the track point (Scan Center Display Functional Schematic A1-F18AC-743-500, WP006 00). |
| 15 | LDT Elevation Digits (ØTLELW) | Display indicates elevation angle of the LDT scan pattern center relative to the horizon. When the LDT is tracking, display indicates LDT elevation pointing angle relative to the horizon (Scan Center Display Functional Schematic, A1-F18AC-743-500, WP006 00). |
| 16 | WIDE/HUD Scan Option (ØTLWID, ØTLHUD, ØTLTS1, ØTLSTB) | Displayed when LDT/CAM pod is aboard aircraft and communicating with the MC. WIDE is automatically selected by the MC when the LDT is turned on. WIDE is automatically commanded by the MC whenever an aimpoint or target is designated, other than by the LDT. HUD is automatically commanded whenever the target designator control (TDC) is assigned to the HUD while undesignated. Either scan option can be selected by the pilot. A box appears around selected scan option (LDT Power Control Functional Schematic, A1-F18AC-743-500, WP005 00) |
| 17 | LDT Not Ready Indication (ØTLSTS) | Displayed during one minute warmup when LDT is turned on or when MC is not receiving communications while LDT/CAM display is selected (LST Power Control Functional Schematic, A1-F18AC-743-500, WP005 00). |

Figure 1. LDT/CAM Symbology (Sheet 3)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

LINK 4 DISPLAY SYMBOLOGY

This WP supersedes WP014 00 dated, 1 August 1999

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| ACL Mode Link 4 Display Symbology (Figure 1) | 3 |
| ACT N/A (Figure 1, Index 4) | 5 |
| ACL RDY (Figure 1, Index 1) | 4 |
| ACL 1 (Figure 1, Index 4) | 5 |
| ACL 2 (Figure 1, Index 4) | 5 |
| ADJ A/C (Figure 1, Index 3) | 5 |
| CHG CHNL (Figure 1, Index 1) | 4 |
| CMD A/S (Figure 1, Index 10) | 6 |
| CMD ALT (Figure 1, Index 9) | 6 |
| CMD CNT (Figure 1, Index 1) | 4 |
| CMD ROD (Figure 1, Index 8) | 5 |
| Command Airspeed Characters (Figure 1, Index 10) | 6 |
| Command Altitude Characters (Figure 1, Index 9) | 6 |
| Command Rate of Descent Data (Figure 1, Index 8) | 5 |
| Compass Rose (Figure 1, Index 11) | 6 |
| Data Link Command Heading Bug (Figure 1, Index 7) | 6 |
| Data Link Window 1 Characters (Figure 1 Index 1) | 4 |
| Data Link Window 2 Characters (Figure 1 Index 2) | 4 |
| Data Link Window 3 Characters (Figure 1, Index 3) | 5 |
| Data Link Window 4 Characters (Figure 1, Index 4) | 5 |
| Ground Track Pointer (Diamond) (Figure 1, Index 6) | 2 |
| HSI/L4MAP (Figure 1, Index 12) | 6 |
| Introduction | 2 |
| LND CHK (Figure 1, Index 1) | 4 |
| MODE 1 (Figure 1, Index 2) | 4 |
| MODE 2 (Figure 1, Index 2) | 4 |
| NOT CMD (Figure 1, Index 1) | 4 |
| T/C (Figure 1, Index 2) | 5 |
| TEST (Figure 1, Index 4) | 5 |
| TILT (Figure 1, Index 2) | 4 |
| UTM FAIL (Figure 1, Index 5) | 5 |
| VOICE (Figure 1, Index 9) | 5 |
| W/O (Figure 1, Index 1) | 4 |
| 10 SEC (Figure 1, Index 3) | 5 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to Link 4 displays provided when the ACL mode is selected

on the HSI (WP009 00). The illustrations are not meant to represent typical displays, but to provide general appearance and positioning of the elements which make up ACL mode Link 4 displays. The descriptions may contain schematic references which show the development of the display elements.

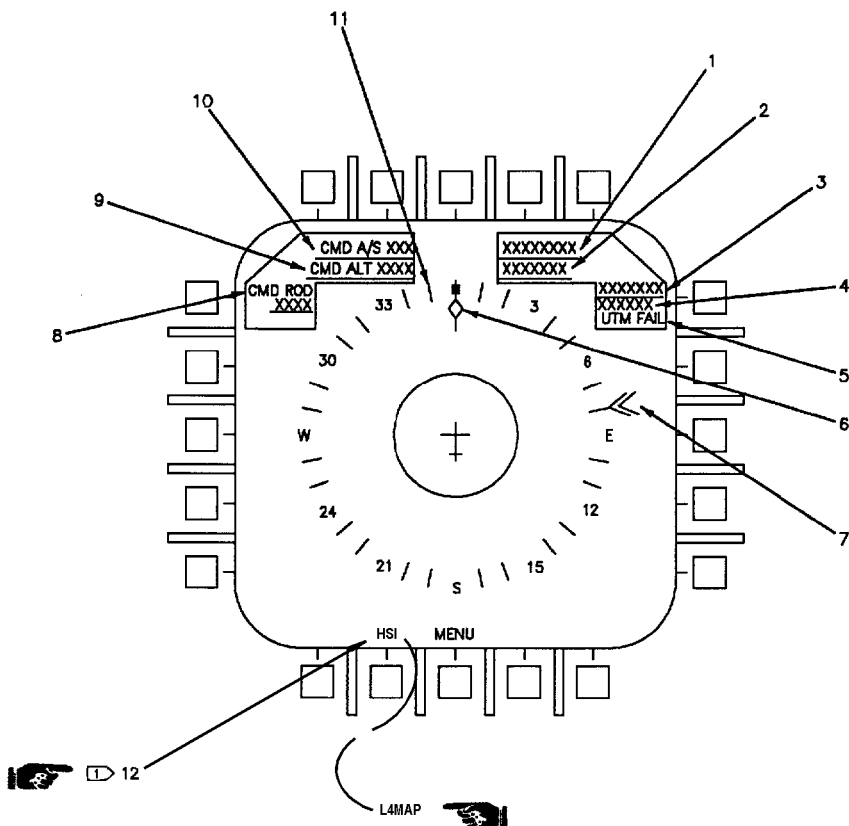


Figure 1. ACL Mode Link 4 Display (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|---|
| 1 | Data Link Window 1 Characters [ØHLW1(A-D)] | <p>Traffic control (TC) message V.5 uplinked mutually exclusive Group 1 are listed below. When any of the Group 1 discretes is initially received, data link (DL) window 1 characters are underlined (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00).</p> <p>LND CHK - Indicates communication with shipboard Landing Control Central AN/SPN-42 (SPN-42) has been established and the aircraft should be in the landing configuration with automatic throttle control (ATC) engaged.</p> <p>ACL RDY - Indicates that SPN-42 acquisition has occurred and the uplinked DL longitudinal and lateral commands. Are being received equal to zero. ACL RDY also displayed on HUD (WP007 00).</p> <p>CMD CNT - Indicates the carrier control terminal has received a verbal confirmation from the pilot that he is coupled to the DL longitudinal and lateral commands and the commands are now active.</p> <p>W/O - Indicates that the pilot is to end the approach and go around. When W/O is received and displayed, the flight control system (FCS) uncouples from the uplinked commands. DL waveoff display also displayed on HUD (WP007 00).</p> <p>NOT CMD - Indicates TC control message V.5 information not valid. When NOT CMD is received, all TC control message V.5 information is removed from the display and the FCS is uncoupled from the V.5 DL heading command.</p> <p>CHG CHNL - Indicates the DL frequency should be changed as prebriefed, or other prebriefed action taken.</p> |
| 2 | Data Link Window 2 Characters [ØHLW2(A-D)] | <p>Mutually exclusive ACL mode total loop operational discretes listed below are displayed. When any operational discrete is initially received, that discrete is underlined (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00).</p> <p>MODE 1 - Indicates the entire loop is capable and ready for coupling to the DL longitudinal and lateral commands for dual Axis ACL control.</p> <p>MODE 2 - Indicates the entire loop is not capable of a MODE 1 coupled approach but is capable of a MODE 2 manual control approach using uplinked data link steering information.</p> <p>T/C - Indicates entire loop is capable and ready for coupling to the TC control message V.5 DL heading command.</p> <p>TILT - Indicates uplinked information is not being updated. When uplinked information is not being updated it is removed from the HUD and Link 4 displays and the FCS is uncoupled from any data link commands. TILT cue also displayed on HUD (WP007 00).</p> |

Figure 1. ACL Mode Link 4 Display (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 3 | Data Link Window 3 Characters [ØHLW3(A-D)] | <p>Mutually exclusive Group 2C discretes listed below are displayed. When any of the Group 2C discretes is initially received, that discrete is underlined (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00).</p> <p>10 SEC - Indicates that the SPN-42 is adding deck compensation to the DL longitudinal and lateral commands. Displayed approximately 12.5 seconds before touchdown.</p> <p>ADJ A/C - Indicates another aircraft has been detected in area.</p> <p>VOICE - Indicates voice contact should be established with the control terminal.</p> |
| 4 | Data Link Window 4 Characters [ØHLW4(A-D)] | <p>Mutually exclusive discretes listed below are displayed indicating on-board capability (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00).</p> <p>ACL 1 - Indicates on-board systems are capable of an ACL or ATC couple to the FCS.</p> <p>ACL 2 - Indicates on-board systems are not capable of an ACL or a TC couple to the FCS but are capable of displaying uplinked information for a MODE 2 manual approach.</p> <p>ACL N/A - Indicates that the on-board systems are not capable of using uplinked information and that a carrier controlled approach must be made.</p> <p>TEST - Indicates that the ACL mode is in test.</p> |
| 5 | UTM FAIL (ØHUTMF) | Displayed when valid uplink universal test messages UTM-3A and UTM-3B are not received during automatic BIT (Data Link System Message Receiving, Transmitting and Mode Control Functional Schematic, A1-F18AC-630-510/(C), WP010 00). |
| 6 | Ground Track Pointer (Diamond) (ØHLØØF) | Indicates aircraft ground track (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 7 | Data Link Heading Bug (ØHLBUG) | Uplinked command heading displayed using the double chevron symbol (Data Command Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |

Figure 1. ACL Mode Link 4 Display (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|---------------|---|--|
| 8 | Command Rate of Descent (CMD ROD) Data (ØHLRDX, ØHLRDO, ØHRDLX) | Indicates uplinked command rate of descent (CMD ROD), displayed in feet per minute. Reception of either a Group 2A monitor altitude discrete or an altitude change warning discrete causes CMD ROD and CMD ALT data (index 9) to be underlined (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 9 | Turn On Command Altitude (CMD ALT) Characters (ØHLCAX, ØHCHGX, ØHLCAO) | Indicates uplinked command altitude (CMD ALT), displayed in feet. Reception of either a Group 2A monitor altitude discrete or an altitude change warning discrete causes CMD ROD (index 8) and CMD ALT data to be underlined (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 10 | Turn On Command Airspeed Characters (CMD A/S) (ØHLASX, ØHCHGX, ØHLRDO) | Indicates uplinked command airspeed (CMD A/S), displayed in knots. Reception of either a Group 2B monitor speed discrete or speed warning discrete causes CMD A/S data to be underlined (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 11 | Compass Rose (ØHCØMP) | Indicates aircraft heading in track-up oriented display. (Data Link System Automatic Carrier Landing (ACL) Mode Functional Schematic, A1-F18AC-630-510/(C), WP009 00). |
| 12 | HSI/L4MAP | Displayed to allow reselection of HSI display when Link 4 is displayed on the HI. L4MAP is displayed on HSI to enable selection of Link 4 display with map from the HSI (Vector Mode Coupled Heading Functional Schematic A1-F18AC-630-510/(C), WP012 02). |
| LEGEND | | |
| 1 | F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 253 OR 162826 THRU 163175 AFTER F/A-18 AFC 292. | |

Figure 1. ACL Mode Link 4 Display (Sheet 4)

ORGANIZATIONAL MAINTENANCE
FAULT REPORTING MANUAL
ADI DISPLAY SYMBOLOGY

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| ADI (Figure 1, Index 5) | 3 |
| ADI Display Symbology (Figure 1) | 2 |
| Airspeed (Figure 1, Index 1) | 3 |
| Altitude (Figure 1, Index 3) | 3 |
| Altitude Source (Figure 1, Index 3) | 3 |
| INS Steering Symbology (Figure 1, Index 4) | 3 |
| INS (Figure 1, Index 9) | 3 |
| Introduction | 4 |
| Nadir (Figure 1, Index 6) | 1 |
| STBY (Figure 1, Index 7) | 3 |
| Turn Indicator (Figure 1, Index 8) | 3 |
| Vertical Velocity (Figure 1, Index 2) | 3 |
| Zenith (Figure 1, Index 6) | 3 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------------|-------------|--|-------------------------|----------------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to the ADI display. The illustrations are not meant to rep-

resent typical displays, but to provide general appearance and positioning of the elements which make up the ADI display. The descriptions may contain schematic references which show the development of the display elements.

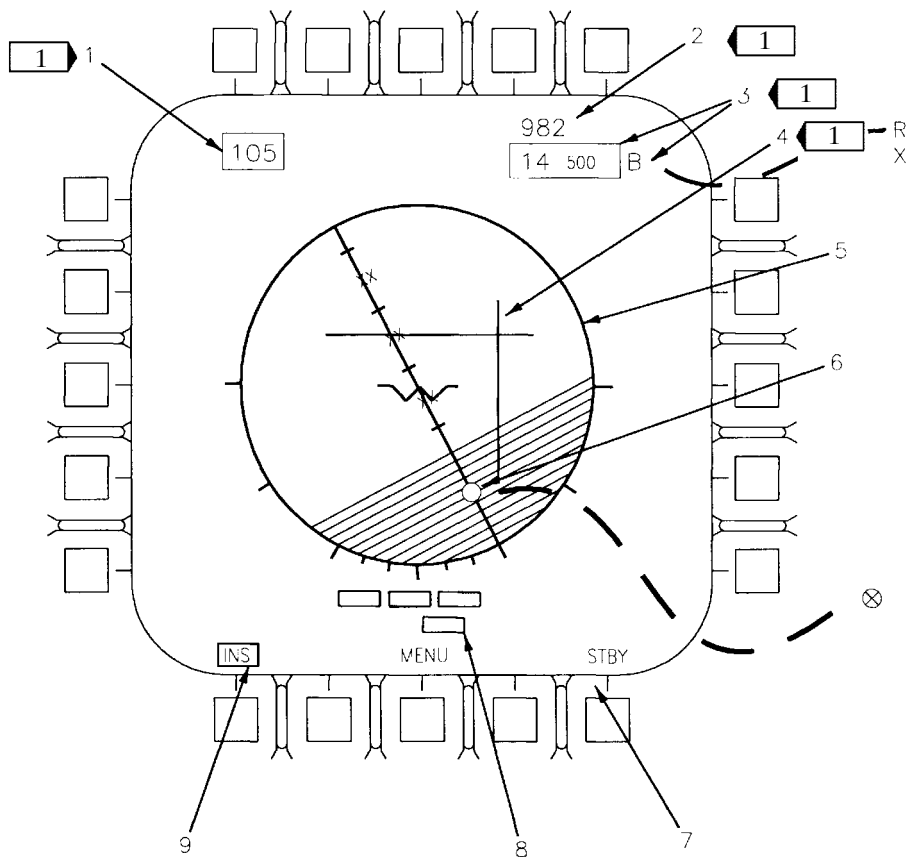


Figure 1. ADI Display Symbology (Sheet 1)







| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 1 | Airspeed  | Displays calibrated airspeed copied from the HUD using 200% size (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017). |
| 2 | Vertical Velocity  | Displays aircraft vertical velocity copied from the HUD using 150% size when master mode is NAV (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 3 | Altitude  | 1. With ALT switch in BARO, barometric altitude is displayed in a box if valid. 2. With ALT switch in RDR, radar attitude is displayed in a box and identified by an R next to the box. If RDR selected but not valid, barometric altitude is displayed with a flashing B replacing the R. If barometric altitude also not valid, only flashing B is displayed. X is displayed if static pressure correction is invalid (Air Data Computer System Functional Schematic, A1-F18AC-560-500, WP004 00). |
| | Altitude Source  | The thousand and ten thousand digits are larger than the tens, hundreds, and units except when altitude less than 1000 feet, then all digits are large size (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 4 | ILS Steering Symbology  | If ILS steering is selected and master mode is NAV azimuth and/or elevation deviation bars are displayed referenced to the waterline symbol. Deviation bars provide course steering reference (ILS Landing System Functional Schematic, A1-F18AE-630-500, WP004 00). |
| 5 | ADI  | Displayed as an alternative to the attitude display on the HUD. The display is generated from INS or Standby Attitude Reference Indicator ARU-48/A roll and pitch information. Pitch marks are numbered at 10, 20, and 30 degrees (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 6 | Zenith/Nadir | A circle on the pitch line at the 90 degree nose up position indicates the zenith (straight up) and a circle with an X at the 90 degree nose down position indicates the nadir (straight down). |
| 7 | STBY | When selected, provides ADI with Standby Attitude Reference Indicator ARU-48/A attitude information. Legend is boxed when selected. ADI is initialized at power-up and weight-on-wheels in the STBY option. When mux communication via the Control-Converter C-10382/A (CSC) is lost or Standby Attitude Reference Indicator ARU-48/A attitude information is invalid, an X is displayed through STBY legend (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |

Figure 1. ADI Display Symbology (Sheet 2)

| Index No. | Display Element (Ref Code) | Description |
|---|----------------------------|---|
| 8 | Turn Indicator | Displays Flight Control System yaw rate. Standard rate of turn (3 degrees per second) is indicated when the lower box is displayed under one of the end boxes (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| 9 | INS | When selected, provides ADI with INS attitude information. Legend is boxed when selected. When mux communication is lost with the INS, an X is displayed through INS legend (Navigation Attitude and Heading Functional Schematic, A1-F18AC-730-500, WP017 00). |
| LEGEND | | |
| <div><div>1</div><div>F/A-18A 162826 THRU 163175 AFTER F/A-18 AFC 253 OR 162394 THRU 163175 AFTER F/A-18 AFC 292.</div></div> | | |

Figure 1. ADI Display Symbology (Sheet 3)

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****MISCELLANEOUS DISPLAY SYMBOLOGY****EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B**

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| A/C WT (Figure 1, Index 9) | 4 |
| A/C Weight and MAX NZ (Figure 1, Index 10) | 4 |
| A/G WPN (Figure 2, Index 5) | 6 |
| Checklist (Figure 1, Index 1) | 4 |
| Checklist Display (Figure 1) | 3 |
| EJECT SEL (Figure 1, Index 3) | 4 |
| FLIR (Figure 2, Index 2) | 6 |
| FUEL INV/EST (Figure 1, Index 7) | 4 |
| HARM DSPLY (Figure 2, Index 3) | 6 |
| ID (Figure 1, Index 2) | 4 |
| Introduction | 2 |
| LST/CAM (Figure 2, Index 4) | 6 |
| MAX NZ (Figure 1, Index 6) | 4 |
| MENU (Figure 2, Index 1) | 6 |
| Menu Display Symbology (Figure 2) | 5 |
| SMS INV/EST (Figure 1, Index 8) | 4 |
| STAB POS (Figure 1, Index 8) | 4 |
| STANDBY (Figure 2, Index 6) | 6 |
| WE DSPLY (Figure 2, Index 5) | 6 |
| WEDL DSPLY (Figure 2, Index 5) | 6 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to the miscellaneous display. The illustrations are not meant to represent typical displays, but to provide general appearance and positioning of the elements which make up the miscellaneous display. The descriptions

may contain schematic references which show the development of the display elements.

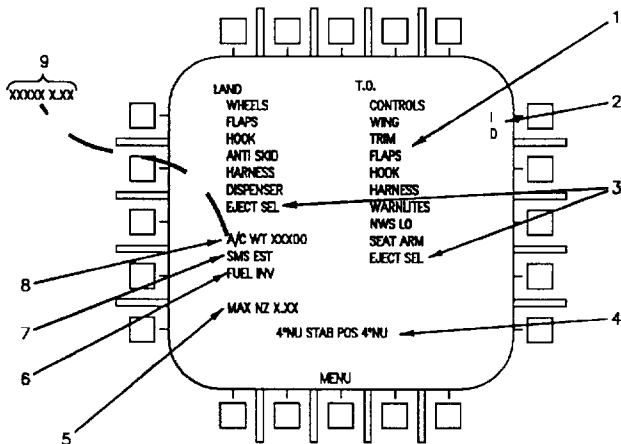


Figure 1. Checklist Display (Sheet 1)













| Index No. | Display Element (Ref Code) | Description |
|--|--|--|
| 1 | Checklist | Displayed when CHKLST is selected on the MENU (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 2 | ID Option and Box (ØSIDBX) | Pressing ID pushbutton enables Electronic Equipment Control data entry of Julian date (DATE) and night number (FLT) for recording. Legend is boxed when active (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-746-500, WP010 00) |
| 3 | EJECT SEL (ØSJE CX) | Displayed Checklist item when aircraft discretes indicate two seat aircraft (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00) |
| 4 | STAB POS (ØSLSB1, ØSR SBI) | Displayed when stabilator data is valid to indicate stabilator trim. Left and right stabilator values are displayed in degrees and NU (nose up) or ND (nose down) is displayed. |
| 5 |  MAX NZ |  Indicates stored maximum vertical acceleration when data is valid (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00) |
| 6 |  FUEL INV/EST (ØSFULX) |  Indicates the status of the calculated weight of the fuel in the aircraft. FUEL INV is displayed and flashed when fuel weight is not valid. FUEL EST is displayed and flashed when fuel weight is estimated. |
| 7 |  SMS INV/EST |  Indicates the status of the calculated weight of the stores on the aircraft as inventoried by the SMS. SMS INV is displayed and flashed when SMS values are not valid. SMS EST is displayed and flashed when SMS values are estimated. |
| 8 |  A/C WT (ØSWTD1) |  Indicates calculated aircraft weight to hundreds of pounds (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 9 |  A/C Weight and MAX NZ (ØSPK06) |  Indicates calculated aircraft weight and stored maximum vertical acceleration when data is valid (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| LEGEND | | |
|  Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 89A (A1-F18AC-SCM-000). | | |
|  Digital Data Computer No. 1/No. 2 CONFIG/IDENT Number 87X (A1-F18AC-SCM-000). | | |

Figure 1. Checklist Display Symbology (Sheet 2)

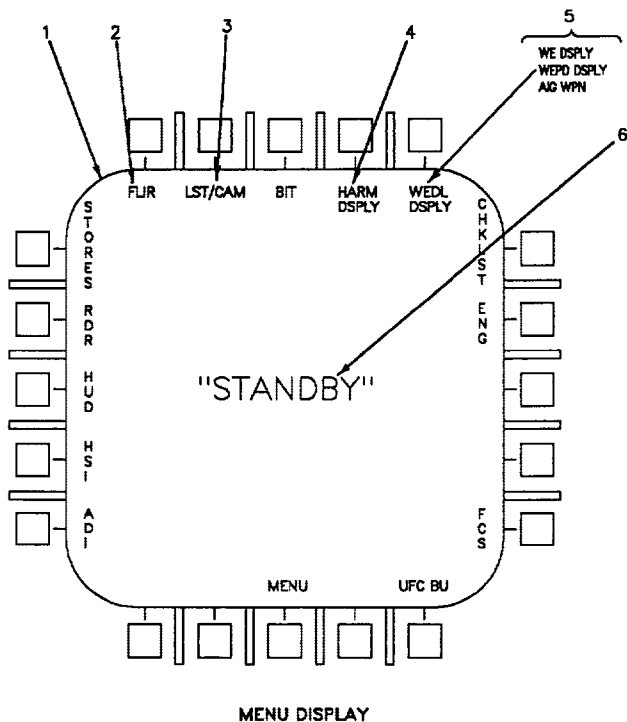


Figure 2. MENU Display Symbology (Sheet 1)

| Index No. | Display Element (Ref Code) | Description |
|-----------|--|--|
| 1 | MENU (ØDMBI(1,2)) (ØDMCH(1,2)) (ØDMEN(1,2)) (ØDMFC(1,2)) (ØDMAD(1,2)) (ØDMUF(1,2)) | Unconditionally displays HSI, HUD, and RDR when MENU pushbutton is pressed. Displays when MC1 is on: BIT CHKLST ENG FCES ADI UFC BU Displays STORES when MC2 is on. (MENU, BIT Control, and Checklist Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 2 | FLIR (ØDMFL(1,2)) | Indicates FLIR equipment is communicating with the MC. |
| 3 | LST/CAM (ØDMLS(1-4)) | Indicates LST/CAM equipment is communicating with the MC. |
| 4 | HARM DSPLY (ØDMHD(1-3)), ØDMHA((1-3)) | Displayed when MC determines CLC is on and MC is on. |
| 5 | WEDL DSDPLY (ØDMAG(2,3)) (ØDMGD(1-3)) | Displayed when a station with a Walleye weapon data link format has been selected and MC2 is on. WE DSDPLY is displayed when a station with a Walleye Weapon is selected. WEDL DSDPLY is displayed when a station with a Walleye POD is selected. A/G WPN is displayed when MC2 is off. |
| 6 | STANDBY | Displayed flashing indicates both MCs are off or not communicating with the displays. |

Figure 2. MENU Display Symbology (Sheet 2)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

MISCELLANEOUS DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|----------|
| A/C WT (Figure 1, Index 8) | 4 |
| ADI (Figure 2, Index 8) | 7 |
| ATTK RDR (Figure 2, Index 1) | 7 |
| AWW-9 (Figure 2, Index 6) | 7 |
| AWW-13 (Figure 2, Index 6) | 7 |
| AZ/EL (Figure 2, Index 1) | 7 |
| BIT (Figure 2, Index 8) | 7 |
| Checklist (Figure 1, Index 1) | 4 |
| Checklist Display (Figure 1, Index 1) | 4 |
| CHKLST (Figure 2, Index 8) | 7 |
| DL9 DSPLY (Figure 2, Index 4) | 7 |
| DL13 DSPLY (Figure 2, Index 4) | 7 |
| DL() DSPLY (Figure 2, Index 4) | 7 |
| EJECT SEL (Figure 1, Index 2) | 4 |
| ENG (Figure 2, Index 8) | 7 |
| EW (Figure 2, Index 8) | 7 |
| FPAS (Figure 2, Index 8) | 7 |
| FLIR (Figure 2, Index 2) | 7 |
| FUEL (Figure 1, Index 8) | 4 |
| FUEL INV/EST (Figure 1, Index 6) | 4 |
| HARM DSPLY (Figure 2, Index 5) | 4 |
| HSI (Figure 2, Index 8) | 7 |
| HUD (Figure 2, Index 1) | 7 |
| Introduction | 2 |
| LST/CAM (Figure 2, Index 3) | 7 |
| LDT/CAM (Figure 2, Index 3) | 7 |
| MAV DSPLY (Figure 2, Index 6) | 7 |
| NAVE DSPLY (Figure 2, Index 6) | 7 |

Alphabetical Index (Continued)

| Subject | Page No. |
|------------------------------------|----------|
| MAVG DSDPLY (Figure 2, Index 6) | 7 |
| MAX NZ (Figure 1, Index 5) | 4 |
| Menu Display (Figure 2) | 5 |
| MU ID (Figure 1, Index 4) | 4 |
| MUMI (Figure 1, Index 8) | 4 |
| NFLR (Figure 2, Index 3) | 7 |
| SA (Figure 2, Index 1) | 7 |
| SLAM DSDPLY (Figure 2, Index 6) | 7 |
| SLAM-9 DSDPLY (Figure 2, Index 6) | 7 |
| SLAM-13 DSDPLY (Figure 2, Index 6) | 7 |
| SMS INV/EST (Figure 1, Index 7) | 4 |
| STAB POS (Figure 1, Index 3) | 4 |
| STANDBY (Figure 2, Index 7) | 7 |
| STORES (Figure 2, Index 1) | 7 |
| STOW FLIR (Figure 1, Index 9) | 4 |
| SUPT (Figure 2, Index 8) | 7 |
| TAC (Figure 2, Index 1) | 7 |
| UFC BU (Figure 2, Index 8) | 7 |
| WE DSDPLY (Figure 2, Index 6) | 7 |
| WEDL DSDPLY (Figure 2, Index 6) | 7 |
| WEDL-9 DSDPLY (Figure 2, Index 6) | 7 |
| WEDL-13 DSDPLY (Figure 2, Index 6) | 7 |
| XXXX DSDPLY (Figure 2, Index 6) | 7 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to the miscellaneous displays. The illustrations are not

meant to represent typical displays, but to provide general appearance and positioning of the elements which make up the the miscellaneous displays. The descriptions may contain schematic references which show the development of the display elements.

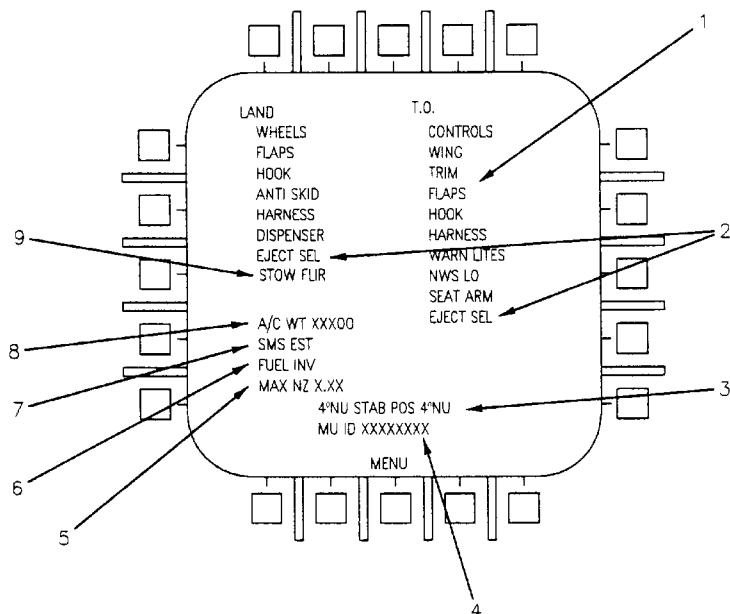
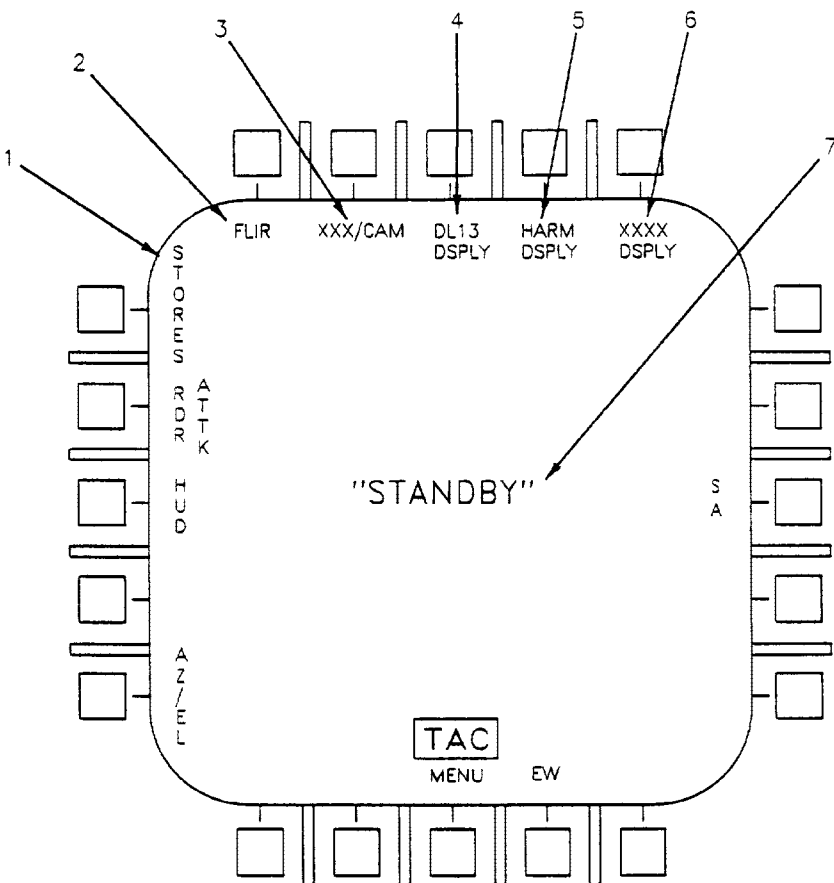


Figure 1. Checklist Display (Sheet 1)

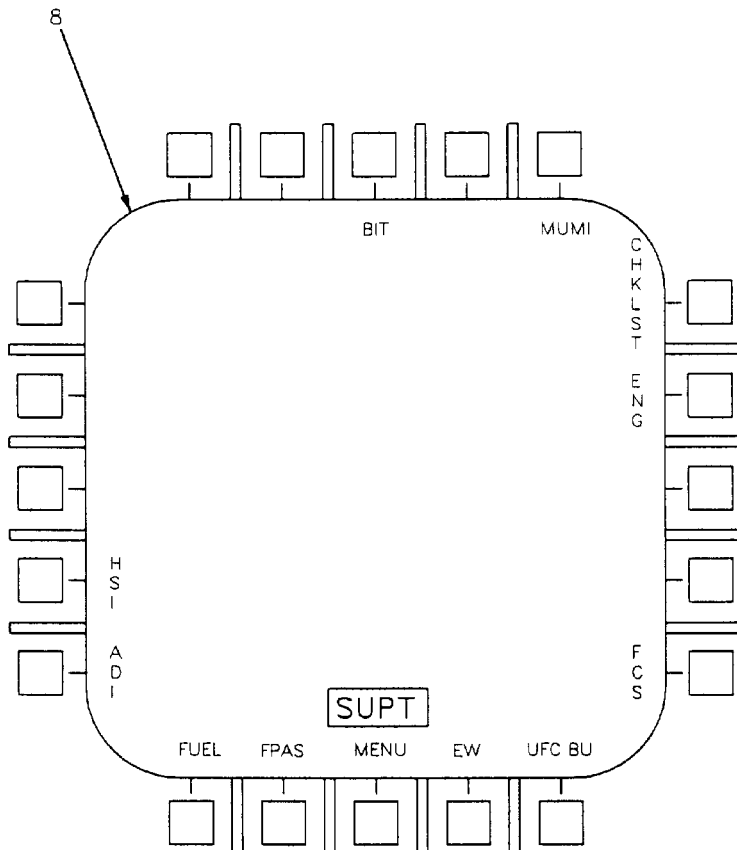
| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | Checklist | Displayed when CHKLST is selected on the SUPT MENU display (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 2 | EJECT SEL | Displayed checklist item when aircraft discretes indicate two seat aircraft (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 3 | STAB POS | Displayed when stabilator data is valid to indicate stabilator trim. Left and right stabilator values are displayed in degrees and NU (nose up) or ND (nose down). |
| 4 | MU ID Label | Displayed when MC is communicating with the MU. Displays file ID or NO IDENT. |
| 5 | MAX NZ | Indicates stored maximum vertical acceleration when data is valid (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 6 | FUEL INV/EST | Indicates the status of the calculated weight of the fuel in the aircraft. FUEL INV is displayed and flashed when fuel weight is not valid. FUEL EST is displayed and flashed when fuel weight is estimated (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 7 | SMS INV/EST | Indicates the status of the calculated weight of the stores on the aircraft as inventoried by the SMS. SMS INV is displayed and flashed when SMS values are not valid. SMS EST is displayed and flashed when SMS values are estimated (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 8 | A/C WT | Indicates calculated aircraft weight to hundreds of pounds (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 9 | STOW FLIR | STOW FLIR is displayed in the landing area of the checklist display when the FLIR is in an operating mode. The indication is removed when the FLIR is in standby (stowed). |

Figure 1. Checklist Display (Sheet 2)



TACTICAL MENU DISPLAY

Figure 2. MENU Display (Sheet 1)



SUPPORT MENU DISPLAY

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | TAC | Tactical menu provides display options listed below: HUD - Head Up Display ATTK RDR - Attack Radar Display STORES - Stores Display (MC 2 operational) SA - Situational Awareness or Automatic Carrier Landing Display (If MC 2 is not operational, the SA format is available unless ACL is boxed on the HSI display. If MCI is not operational the SA format is not available when ACL is boxed on the HSI display.) AZ/EL - Azimuth/Elevation Display (A/A master mode and MC 2 operational) EW - Electronic Warfare Display Weapon and pod display indications listed for index 2 thru index 6. Pressing TAC MENU pushbutton selects SUPT (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |
| 2 | FLIR | Indicates FLIR equipment is installed and communicating with the mission computer system. |
| 3 | LDT/CAM | Indicates LDT/CAM equipment is installed and communicating with the mission computer system. |
| 4 | DL() DPLPY | DL9 DPLPY, DL13 DPLPY. Provides the AWW-9 or AWW-13 data link pod format. The option is available only when the mission computer system is operational and the pod is installed on the aircraft. |
| 5 | HARM DPLPY | Displayed when the mission computer system is operational and the Command Launch Computer is on. |
| 6 | XXXX DPLPY | Provides the displayed A/G weapon format. The weapon must be loaded and selected to receive the option. A/G WPN is displayed when Digital Data Computer No. 2 is not operational. The weapon displays listed below are available when Digital Data Computer No. 2 is operational. MAV DPLPY, MAVF DPLPY, MAVG DPLPY - Maverick SLAM-9 DPLPY, SLAM-13 DPLPY - Stand Off Land Attack Missile WE DPLPY, WEDL DPLPY, WEDL-13 DPLPY, WEDL-9 DPLPY - Walleye |
| 7 | STANDBY | Displayed flashing indicates both MC's are off or not communicating with the displays. |
| 8 | SUPT | Support menu provides display options listed below: ADI - Electronic Attitude Display Indicator Display (MC 1 operational) HSI - Horizontal Situation Indicator BIT - Built-In Test Display (MC 1 operational) CHKLST - Checklist Display (MC 1 operational) ENG - Engine Display (MC 1 operational) FCS - Flight Control System Display (MC 1 operational) UFC BU - Up Front Control Backup Display (MC 1 operational) FPAS - Flight Performance Advisory System Display (MC 1 operational) MUMI - Memory Unit Mission Initialization Display (MC 1 operational) FUEL - Fuel Display (MC 1 operational) Pressing SUPT MENU pushbutton selects TAC MENU (MENU, BIT Control, and Checklist Display Functional Schematic, A1-F18AC-745-500, WP010 00). |

Figure 2. MENU Display (Sheet 3)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

UNIVERSAL TRANSVERSE MERCATOR DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A BEFORE F/A-18 AFC 253 OR F/A-18 AFC 292 AND F/A-18B

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| A/C Position (Figure 1, Index 9) | 6 |
| Alternate Units (Figure 1, Index 1) | 5 |
| Grid Characters (Figure 1, Index 5) | 6 |
| Grid Shift Options (Figure 1, Index 8) | 6 |
| Grid Shift Reference (Figure 1, Index 10) | 6 |
| Grid Zone Numbers (Figure 1, Index 11) | 6 |
| Introduction | 1 |
| O/S Grid Characters (Figure 1, Index 4) | 5 |
| O/S Position (Figure 1, Index 9) | 6 |
| REF WP (Figure 1, Index 2) | 5 |
| REF WP Position (Figure 1, Index 2) | 5 |
| Spheroid Option (Figure 1, Index 3) | 5 |
| Square Identification Grid (SIG) (Figure 1, Index 7) | 6 |
| UFC (Figure 1, Index 6) | 6 |
| Universal Transverse Mercator Symbology (Figure 1) | 2 |

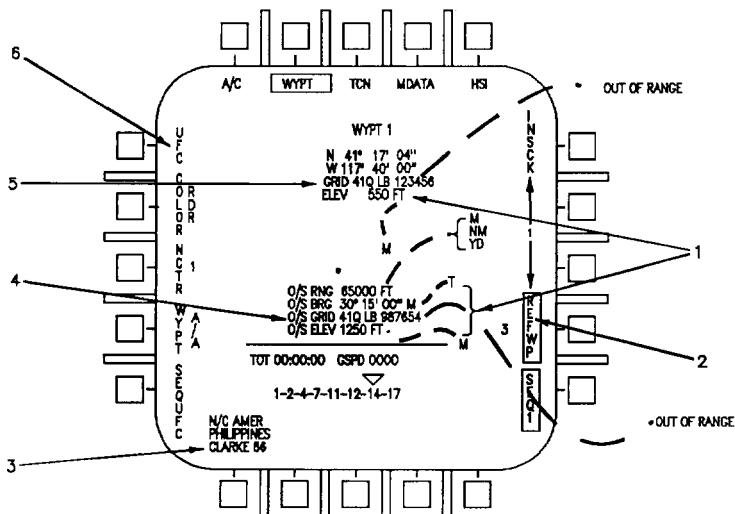
Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to the Universal Transverse Mercator display. The illustra-

tions are not meant to represent typical displays, but to provide general appearance and positioning of the elements which make up the Universal Transverse Mercator display. The descriptions may contain schematic references which show the development of the display elements.



HSI DATA OPTION (WYPT)

Figure 1. Universal Transverse Mercator Display Symbology (Sheet 1)

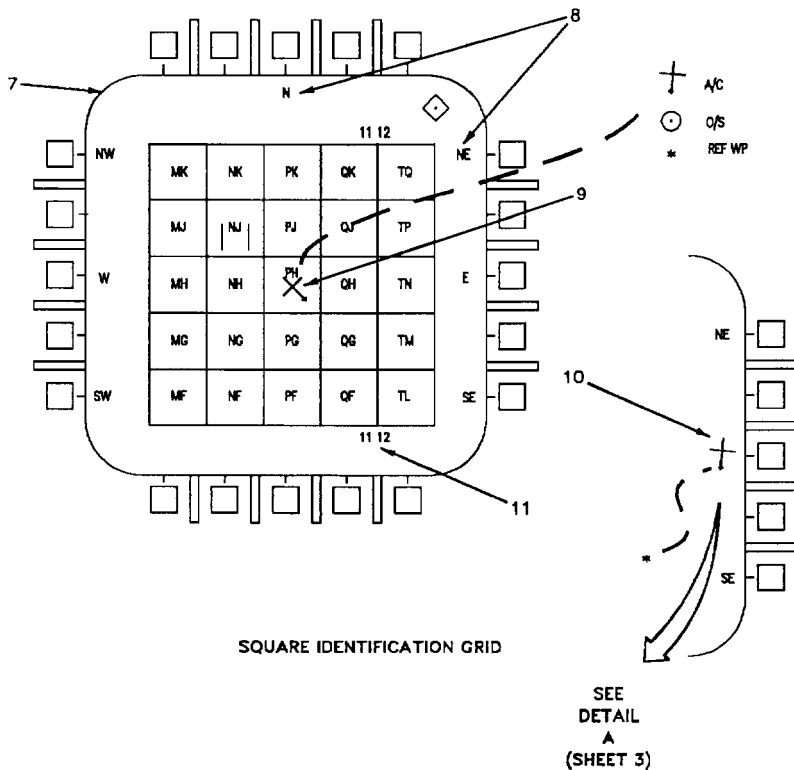
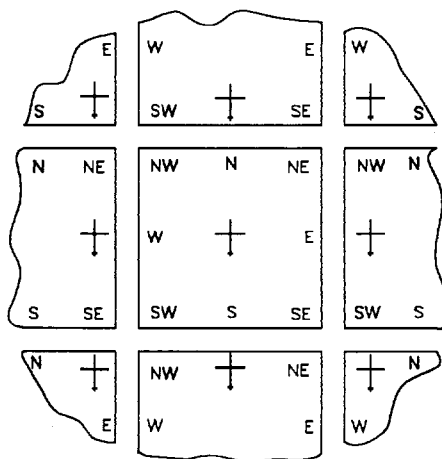


Figure 1. Universal Transverse Mercator Display Symbolology (Sheet 2)



A

GRID SHIFT
REFERENCE PUSHBUTTON
PATTERNS

Figure 1. Universal Transverse Mercator Display Symbolry (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | Alternate Units | <p>Alternate units are provided for quantitative data. Alternate units are selected when data is entered using the UFC. Alternate units displayed for data include:</p> <p>Elevation F - feet M - meters</p> <p>Offset range F - feet M - meters YD - yards NM - nautical miles</p> <p>Offset bearing M - magnetic T - true</p> <p>Offset elevation and TCN data elevation FT - feet M - meters</p> |
| 2 | REF WP | Pressing REF WP pushbutton causes the Square Identification Grid to be centered at the position of the waypoint shown at the REF WP pushbutton. REF WP is boxed when selected. When REF WP is not selected (not boxed) the SIG is centered on aircraft present position. |
| 3 | Spheroid Option | <p>Displays the selected spheroid map name and area of coverage. Pressing and releasing pushbutton changes spheroid selection in the order INTL, BESSEL, CLARKE 66, CLARKE 80, EVEREST, AUST NAT, WGS. Area of coverage legends displayed are:</p> <p>BESSEL - NW ASIA, WINDSIA CLARK 80 - C/S AFRICA EVEREST - INDIA, SE ASIA CLARK 66 - N/C AMERICA, PHILIPPINES AUST NAT - AUST, GUINIA</p> |
| 4 | O/S GRID Characters | <p>Displays the offset position in UTM grid coordinates if available. Offset grid is available when the LAT/LONG of the offset is in range (between N84° and S80°) and not zero.</p> <p>When LAT/LONG is out of range, OUT OF RANGE is displayed using large characters. The O/S grid characters are not displayed when offset is zero.</p> |
| 5 | GRID Characters | <p>Displays the waypoint position in UTM grid coordinates if available. Grid is available when the latitude of the waypoint is in range (between N84° and S80°). When latitude is out of range, OUT OF RANGE is displayed using large characters. When a grid coordinate is entered which converts to a latitude which is out of range, the entered UTM coordinate characters are flashed until a change occurs as indicated below:</p> <ol style="list-style-type: none"> the waypoint is changed, UFC pushbutton is selected, the electronic equipment control is forced to a new format, the electronic equipment control is blanked, or electronic equipment control CLEAR is selected. <p>UTM grid coordinates return to the last valid coordinates when out of range coordinates are cancelled.</p> |

Figure 1. Universal Transverse Mercator Display Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 6 | UFC | Pressing the UFC option pushbutton on the data option display enables the electronic equipment control to display data entry options and accept data entry. |
| 7 | Square Identification Grid (SIG) | 5 by 5 square used to define square identification alpha characters. Initial position is centered on aircraft position, reference waypoint position for waypoint position entry, or selected waypoint for offset position entry. Blank squares are shown when latitude is above N84° or below S80°, or longitude lines converge. |
| 8 | Grid Shift Options | Grid shift options are provided to enable selection of one of the grids adjacent to the center grid. Up to 8 pushbutton options will be displayed depending on the SIG being displayed. Pressing a grid shift pushbutton (N, NE, E, SE, S, SW, W or NW) selects the adjacent grid in the direction chosen. |
| 9 | A/C Position, REF WP Position, O/S Position | Aircraft, offset (O/S), or REF WP symbol is displayed. SIG is initially centered on the symbol. Aircraft symbol is drawn to aircraft heading (magnetic or true). Symbol is positioned at a pushbutton when a grid shift is displayed (index 10). |
| 10 | Grid Shift Reference | A/C or REF WP position symbol is displayed at a pushbutton when grid shift is displayed. Position of the symbol indicates direction to return to the base grid. Grid shift options (index 8) are limited to directions which can display valid grids (detail A). |
| 11 | Grid Zone Numbers | Grid Zone reference identification displayed at top and bottom of the grid at the intersection of two grid zones. |

Figure 1. Universal Transverse Mercator Display Symbology (Sheet 5)

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

UNIVERSAL TRANSVERSE MERCATOR

EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| A/C Position (Figure 1, Index 11) | 6 |
| Alternate Units (Figure 1, Index 1) | 5 |
| Available Map Datums (Table 1) | 7 |
| DATUM XX Option (Figure 1, Index 4) | 5 |
| Grid Characters (Figure 1, Index 8) | 6 |
| Grid Shift Options (Figure 1, Index 10) | 6 |
| Grid Shift Reference (Figure 1, Index 12) | 6 |
| Grid Zone Numbers (Figure 1, Index 13) | 6 |
| Introduction | 1 |
| O/S Grid Characters (Figure 1, Index 6) | 5 |
| O/S Position (Figure 1, Index 11) | 6 |
| Precise (Figure 1, Index 3) | 5 |
| REF WP (Figure 1, Index 2) | 5 |
| REF WP Position (Figure 1, Index 11) | 6 |
| Spheroid (Figure 1, Index 5) | 5 |
| Square Identification Grid (SIG) (Figure 1, Index 9) | 6 |
| UFC (Figure 1, Index 7) | 6 |
| Universal Transverse Mercator Symbolology (Figure 1) | 2 |

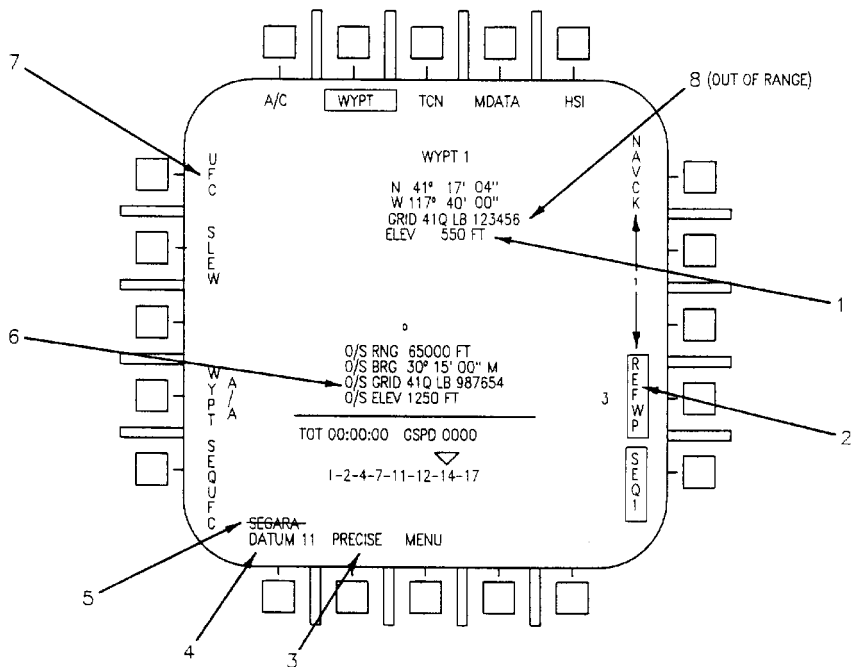
Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to the

Universal Transverse Mercator display. The illustrations are not meant to represent typical displays, but to provide general appearance and positioning of the elements which make up the Universal Transverse Mercator display.



HSI DATA OPTION (WYPT)

Figure 1. Universal Transverse Mercator Symbology (Sheet 1)

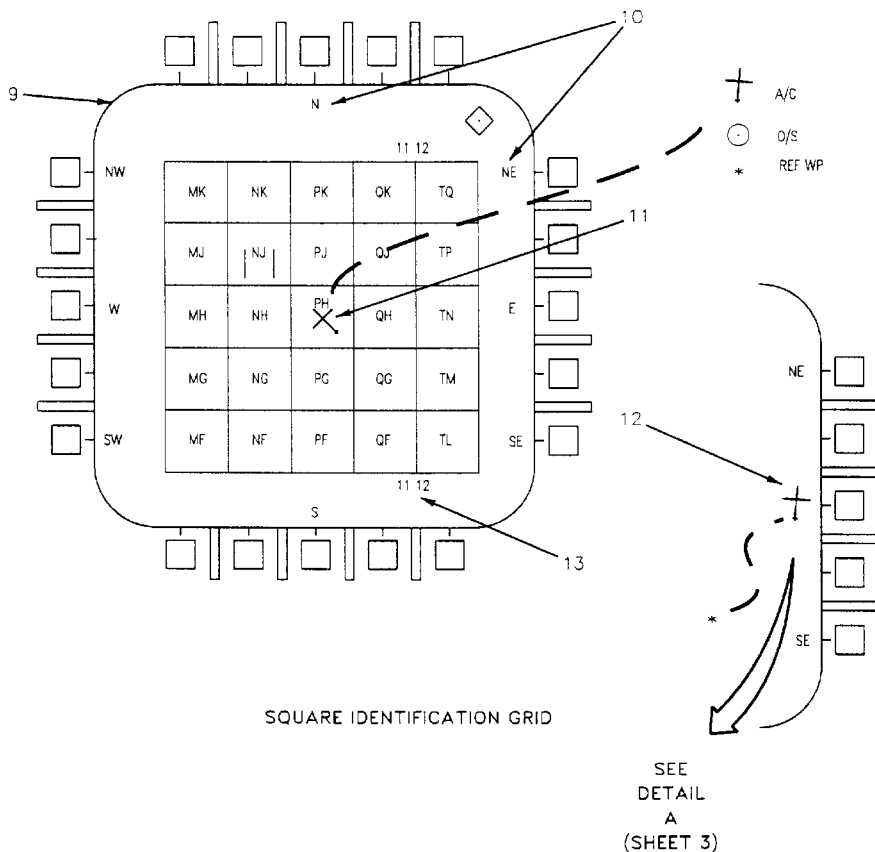
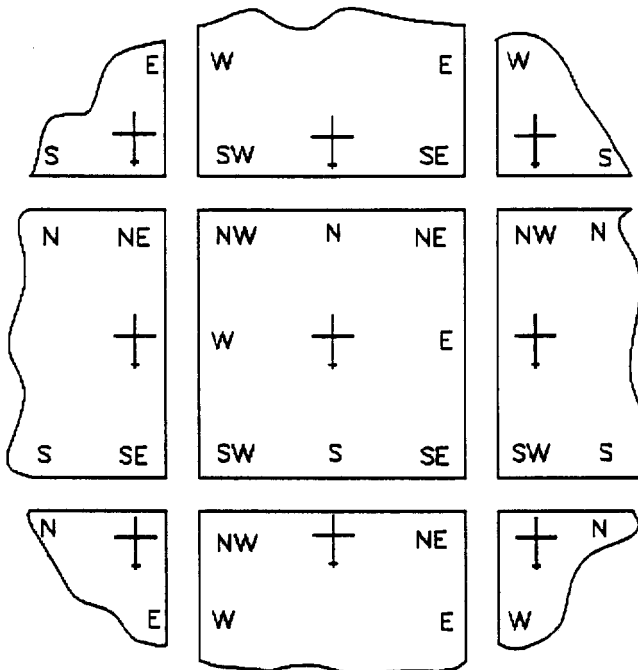


Figure 1. Universal Transverse Mercator Symbology (Sheet 2)



A

**GRID SHIFT
REFERENCE PUSHBUTTON
PATTERNS**

Figure 1. Universal Transverse Mercator Symbology (Sheet 3)

| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|--|
| 1 | Alternate Units | <p>Alternate units are provided for quantitative data. Alternate units are selected when data is entered using the UFC. Alternate units displayed for data include:</p> <p>Elevation F - feet M - meters</p> <p>Offset range F - feet M - meters YD - yards NM - nautical miles</p> <p>Offset bearing M - magnetic T - true</p> <p>Offset elevation and TCN data elevation FT - feet M - meters</p> |
| 2 | REF WP | Pressing REF WP pushbutton causes the Square Identification Grid to be centered at the position of the waypoint shown at the REF WP pushbutton. REF WP is boxed when selected. When REF WP is not selected (not boxed) the SIG is centered on aircraft present position. |
| 3 | Precise | Selection of PRECISE option allows entry and display of position data with a resolution of 0.01 arc seconds. Precise enables an additional UFC option which accepts further entries after degrees/min utes/seconds entry is completed. |
| 4 | Datum XX Option | Datum option and selected datum number are displayed to alert the UTM user that datum conversion is occurring to account for non-WGS datum use. Momentarily selecting DATUM increments the datum number and displays the correct spheroid for the new datum. If DATUM pushbutton is pressed and held. DATUM selection using the UFC is enabled and the datum number and spheroid reflect the datum entered on the UFC. When the newly selected datum is a non-WGS datum, up to 3 seconds may be required to complete conversion. Waypoint data (LAT, LONG, ALT, GRID) is blanked until con version is complete. WGS-84, datum 47, is selected at start up and when map slew is active. |
| 5 | Spheroid | Displays the selected spheroid map name. Spheroid, datum number, datum name, and datum abbreviation are listed in table 1. When the GPS is communicating but datum conversion is not successful the spheroid name is displayed lined out. |
| 6 | O/S GRID Characters | Displays the offset position in UTM grid coordinates if available. Offset grid is available when the LAT/LONG of the offset is in range (between N84 and S80) and not zero. When LAT/LONG is out of range, OUT OF RANGE is displayed using large characters. The O/S grid characters are not-displayed when offset is zero. |

Figure 1. Universal Transverse Mercator Symbology (Sheet 4)

| Index No. | Display Element (Ref Code) | Description |
|-----------|---|--|
| 7 | UFC | Pressing the UFC option pushbutton on the data option display enables the electronic equipment control to display data entry options and accept data entry. |
| 8 | GRID Characters | <p>Displays the waypoint position in UTM grid coordinates if available. Grid is available when the latitude of the waypoint is in range (between N84 and S80). When latitude is out of range, OUT OF RANGE is displayed using large characters. When a grid coordinate is entered which converts to a latitude which is out of range, the entered UTM coordinate characters are flashed until:</p> <ol style="list-style-type: none"> the waypoint is changed, UFC pushbutton is selected, the electronic equipment control is forced to a new format, the electronic equipment control is blanked, or electronic equipment control CLEAR is selected. UTM grid coordinates return to the last valid coordinates when out of range coordinates are cancelled. |
| 9 | Square Identification Grid (SIG) | 5 by 5 square used to define square identification alpha characters. Initial position is centered on aircraft position, reference waypoint position for waypoint position entry, or selected waypoint for offset position entry. Blank squares are shown when latitude is above N84 or below S80. or longitude lines converge. |
| 10 | Grid Shift Options | Grid shift options are provided to enable selection of one of the grids adjacent to the center grid. Up to 8 pushbutton options will be displayed depending on the SIG being displayed. Pressing a grid shift pushbutton (N, NE, E, SE, S, SW, W or NW) selects the adjacent grid in the direction chosen. |
| 11 | A/C Position, REF WP Position, O/S Position | Aircraft, offset (O/S), or REF WP symbol is displayed. SIG is initially centered on the symbol. Aircraft symbol is drawn to aircraft heading (magnetic or true). Symbol is positioned at a pushbutton when a grid shift is displayed (index 10). |
| 12 | Grid Shift Reference | A/C or REF WP position symbol is displayed at a pushbutton when grid shift is displayed. Position of the symbol indicates direction to return to the base grid. Grid shift options are limited to directions which can display valid grids (detail A). |
| 13 | Grid Zone Numbers | Grid Zone reference identification displayed at top and bottom of the grid at the intersection of two grid zones. |

Figure 1. Universal Transverse Mercator Symbology (Sheet 5)

Table 1. Available Map Datums

| DATUM Number | Datum Name | Datum Abbreviation | Selected Spheroid |
|-----------------|-----------------------------|-----------------------|----------------------|
| 1 | ADINDAN | ADINDAN | Clarke 1880 |
| 2 | ARC1950 | ARC 1950 | Clarke 1880 |
| 3 | AUSTRALIAN GEODETIC 1984 | AUSTRALIA 84 | Australian |
| 4 | BUKIT RIMPAH | BUKIT RIM | Bessel |
| 5 | CAMP AREA ASTRO | CAMP AA | International |
| 6 | DJAKARTA | DJAKARTA | Bessel |
| 7 | EUROPEAN 1950 | EURO 1950 | International |
| 8 | GEODETIC DATUM 1949 | 1949 | International |
| 9 | GHANA | GHANA | WGS-84 |
| 10 | GUAM 1963 | GUAM 1963 | Clarke 1886 |
| 11 | A. SEGARA | SEGARA | Bessel |
| 12 | A. SERINDUNG | SERINDUNG | WGS-84 |
| 13 | HERAT NORTH | HERAT NORTH | International |
| 14 | HJORSEY 1955 | HJORSEY | International |
| 15 | HU-TZU-SHAN | HU-TZU-SHAN | International |
| 16 | INDIAN | INDIAN | Everest |

Table 1. Available Map Datums (Continued)

| DATUM Number | Datum Name | Datum Abbreviation | Selected Spheroid |
|-----------------|---|-----------------------|----------------------|
| 17 | IRELAND 1965 | IRELAND 65 | Bessel |
| 18 | KERTAU((MAYALAN REVISED TRIANGULATION) | KERTAU | Everest |
| 19 | LIBERIA 1964 | LIBERIA 64 | Clarke 1880 |
| 20 | USER ENTERED | WGS-84 | WGS-84 |
| 21 | LUZON | LUZON | Clarke 1886 |
| 22 | MERCHICH | MERCHICH | Clarke 1880 |
| 23 | MONTJONG LOWE | MONTJONG | WGS-84 |
| 24 | NIGERIA (MINNA) | NIGERIA | Clarke 1880 |
| 25 | NORTH AMERICAN 1927 (CONUS) | NAD 27 CONUS | Clarke 1886 |
| 26 | NORTH AMERICAN 1927 (ALASKA AND CANADA) | NAD 27 NORTH | Clarke 1886 |
| 27 | OLD HAWAIIAN, MAUI | MAUI | International |
| 28 | OLD HAWAIIAN, OAHU | OAHU | International |
| 29 | OLD HAWAIIAN, KAUAI | KAUAI | International |
| 30 | ORDNANCE SURVEY OF GREAT BRITIAN 1936 | OSGB 1936 | Bessel |

Table 1. Available Map Datums (Continued)

| DATUM Number | Datum Name | Datum Abbreviation | Selected Spheroid |
|--------------|--|--------------------|-------------------|
| 31 | QORNOQ | QORNOQ | International |
| 32 | SIERRA LEONE 1960 | SIERRA 60 | WGS-84 |
| 33 | SOUTH AMERICAN (PROVINCIAL SOUTH AMERICAN 1956) | S. AMERICA | International |
| 34 | SOUTH AMERICAN (CORREGO ALLEGRE) | CPR ALEGRE | International |
| 35 | SOUTH AMERICAN (CAMPO INCHAUSPE) | CAMPO INCHAU | International |
| 36 | SOUTH AMERICAN (CHUA ASTRO) | CHUA ASTRO | International |
| 37 | SOUTH AMERICAN (YACARE) | YACARE | International |
| 38 | TANANARIVE OBSERVATORY 1925 | TAN OBS 25 | International |
| 39 | TIMBALI | TIMBALI | Bessel |
| 40 | TOKYO | TOKYO | Bessel |
| 41 | VIORAL | VIORAL | WGS-84 |
| 42 | SPECIAL DATUMS (50) MGRS RELATED. INDIAN SPECIAL | INDIAN SP | Everest |
| 43 | SD. LUZON SPECIAL | LUZON SP | Clarke 1866 |

Table 1. Available Map Datums (Continued)

| DATUM Number | Datum Name | Datum Abbreviation | Selected Spheroid |
|-----------------|--------------------|-----------------------|----------------------|
| 44 | SD. TOKYO SPECIAL | TOKYP SP | Bessel |
| 45 | SD. WGS-84 SPECIAL | WGS-84 | WGS-84 |
| 46 | WGS 72 | WGS 72 | WGS-84 |
| 47 | WGS-84 | WGS-84 | WGS-84 |

ORGANIZATIONAL MAINTENANCE

FAULT REPORTING MANUAL

FLIGHT PERFORMANCE ADVISORY SYSTEM (FPAS) DISPLAY SYMBOLOGY

EFFECTIVITY: F/A-18A AFTER F/A-18 AFC 253 OR F/A-18 AFC 292

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Current Status Area (Figure 1, Index 1) | 4 |
| Default Area (Figure 1, Index 7) | 5 |
| Distance from Waypoint to Begin Descent (Figure 1, Index 10) | 5 |
| Flight Performance Advisory System Displays (Figure 1) | 2 |
| Fuel Flow Area (Figure 1, Index 2) | 4 |
| Fuel Remaining at Waypoint (Figure 1, Index 9) | 5 |
| Home Waypoint Option (Figure 1, Index 5) | 4 |
| Introduction | 1 |
| Optimum Climb Option (Figure 1, Index 6) | 4 |
| Optimum Situation Area (Figure 1, Index 3) | 4 |
| UFC (Figure 1, Index 4) | 4 |
| Waypoint/Tacan Steering Area (Figure 1, Index 8) | 5 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION

2. This work package contains illustrations and descriptions of the display elements common to the Flight Performance Advisory System (FPAS) display.

The illustrations are not meant to represent typical displays, but to provide general appearance and positioning of the elements which make up the FPAS display. The descriptions may contain schematic references which show the development of the display elements.

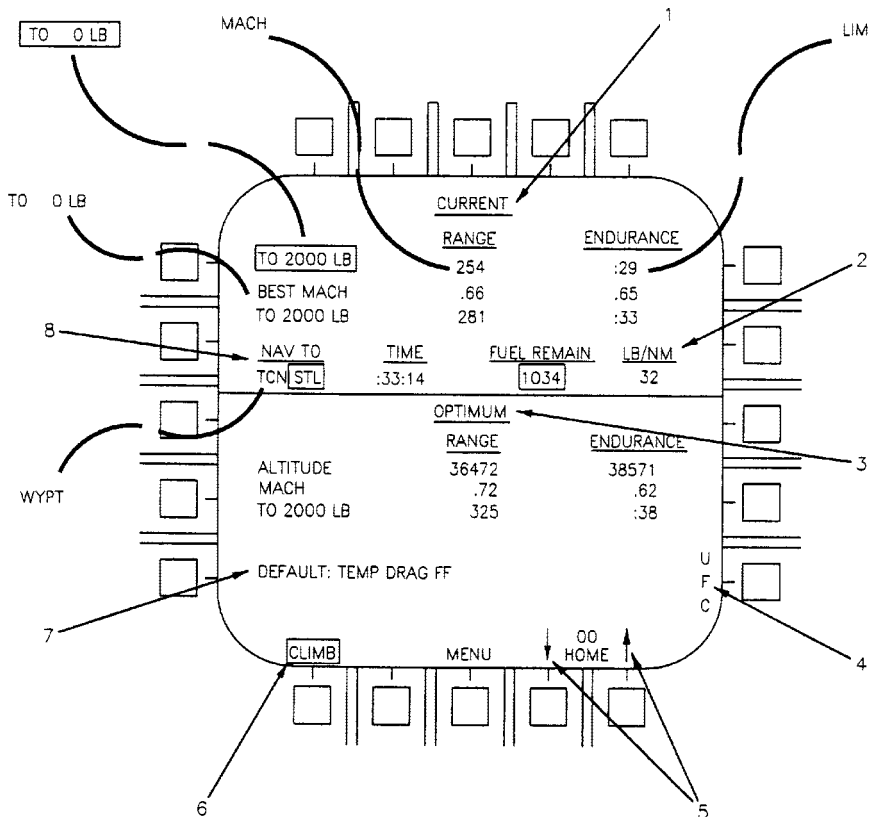


Figure 1. Flight Performance Advisory System Displays (Sheet 1)

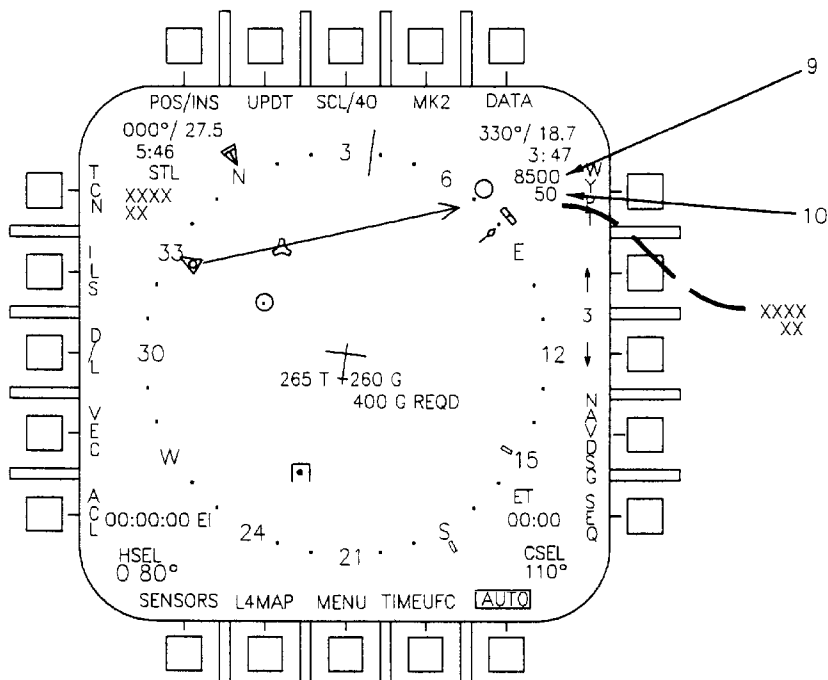


Figure 1. Flight Performance Advisory System Displays (Sheet 2)

| Index No. | Display Element (Ref Codes) | Description |
|-----------|-----------------------------|---|
| 1 | Current Status Area | <p>Current range and endurance values are calculated and displayed when in put values are valid and true airspeed is less than .9 mach. CURRENT RANGE is the range to 2000 lbs fuel, or to a pilot selected home fuel val ue. remaining at the current mach and altitude. The airspeed which will provide the best range to 2000 lbs or home fuel value remaining is also calculated and displayed with the range, including descent to the ground, that can be flown when best airspeed is used. CURRENT ENDURANCE displays the time to 2000 lbs or home fuel at the current mach and altitude, the optimum mach forendurance, and the endurance at optimum mach.</p> <p>When the current true airspeed is greater than .9 mach, no current range value is displayed, MACH is displayed below the range legend, and LIM is displayed below the ENDURANCE legend in place of the endurance value.</p> <p>When any of the preconditions is not valid, the range and endurance values display XXXX and FPAS advisory is displayed. Range and endurance are computed to 2000 LBS when total fuel drops below the selected home fuel value. Range and endurance to 0 lbs fuel remaining is computed whet, fuel weight is below 2000 lbs and the TO 2000 LBS legend changes to TO 0 LBS. See HOME FUEL caution (WP004 00) and FPAS advisory (WP004 00)</p> |
| 2 | Fuel Flow Area | Total fuel flow rate (both engines) is displayed as LB/NM (pounds per nautical mile) for the current conditions. A typical value for fuel flow at current conditions will be used and displayed when the actual values from the signal data computer are not valid. |
| 3 | Optimum Situation Area | Optimum range and endurance are calculated and displayed in the same manner as current range and endurance (index 1) and represent the range/ endurance that will be achieved when the aircraft is operated at the indi cated optimum mach and altitude. |
| 4 | Home Waypoint Option | Selected home waypoint number is displayed above the HOME pushbut ton legend and is changed by pressing the up/down arrows to increase/de crease the selected number. |
| 5 | UFC | Pressing UFC pushbutton enables the UFC for entry of pilot selected home fuel value greater than 2000 lbs. The UFC entered home fuel is displayed in the TO XXXX LB windiw and is used to set the HOME FUEL caution. |
| 6 | Optimum Climb Option | CLIMB option is displayed on the FPAS display to select optimum climb/descent airspeed value display on the head up display above the airspeed box. CLIMB push button legend is boxed when selected. Selecting CLIMB when it is boxed deselects climb display, unboxes the legend, and removes the climb airspeed display. |

Figure 1. Flight Performance Advisory System Displays (Sheet 3)

| Index No. | Display Element (Ref Codes) | Description |
|-----------|---|---|
| 7 | Default Area | TEMP DRAG, or FF will be displayed when temperature, stores drag or fuel flow default values are being used by the mission computer due to missing or invalid input signals. |
| 8 | Waypoint/Tacan Steering Area | The selected waypoint or tacan steering destination is displayed with calculated values for arrival time, fuel remaining at arrival, and fuel remaining at the calculated optimum descent point using the current flight conditions. The waypoint number and TO 2000 LB legend are flashed on the FPAS and HSI display when the calculated fuel at arrival is less than 2000 lb. Zero (0) is displayed when the calculated fuel remaining at arrival is less than zero. See HOME FUEL caution (WP003 00). |
| 9 | Fuel Remaining at Waypoint | Displayed when waypoint or TACAN steering is selected. Indicates the at Waypoint computed fuel remaining at arrival point. Fuel remaining is blanked out when TAS (true airspeed) is greater than 0.9 mach. X's are displayed when fuel remaining is invalid. |
| 10 | Distance from Waypoint to Begin Descent | Displayed when waypoint or TACAN steering is selected. Indicates the computed number of miles from the waypoint or TACAN station to begin descent. The maximum number of miles displayed is 99 nm regardless of the distance from the point to begin descent. X's are displayed when time to waypoint or TACAN station is invalid. |

Figure 1. Flight Performance Advisory System Displays (Sheet 4)

ORGANIZATIONAL MAINTENANCE**FAULT REPORTING MANUAL****AZ/EL DISPLAY SYMBOLOGY**

Reference Material

None

Alphabetical Index

| Subject | Page No. |
|---|-----------------|
| Aircraft Heading (Figure 1, Index 19) | 9 |
| AZ/EL Symbology WITH Digital Data Computer CONFIG/IDENT 09C AND UP (Figure 1) | 3 |
| CIT AUTO INT Option (Figure 1, Index 26) | 10 |
| CIT Azimuth Coverage (Figure 1, Index 24) | 10 |
| CIT FOV Coverage (Figure 1, Index 22) | 10 |
| CIT Interrogation Type (Figure 1, Index 21) | 10 |
| CIT L+S INT Option (Figure 1, Index 26) | 10 |
| CIT Range Coverage (Figure 1, Index 23) | 10 |
| Digital/Azimuth/Elevation (Figure 1, Index 17) | 9 |
| Dugout (Figure 1, Index 17) | 9 |
| EL SCALE Option (Figure 1, Index 5) | 5 |
| EXP Option (Figure 1, Index 11) | 6 |
| FOV Cues (Figure 1, Index 14) | 8 |
| FOV Option (Figure 1, Index 1) | 5 |
| Grid (Figure 1, Index 6) | 5 |
| HARM Activity (Figure 1, Index 10) | 6 |
| HRM OVRD Option (Figure 1, Index 8) | 6 |
| Introduction | 2 |
| MSI Data Window (Figure 1, Index 4) | 5 |
| MSI Track File Data (Figure 1, Index 4) | 5 |
| RDRSL (Figure 1, Index 20) | 10 |
| RSET (Figure 1, Index 9) | 6 |
| Scan Center/Slew Cross (Figure 1, Index 13) | 7 |
| Selected Sensor Indication (Figure 1, Index 10) | 6 |
| Target Symbology (Figure 1, Index 15) | 9 |
| TDC Diamond (Figure 1, Index 3) | 5 |
| Track File ID Option (Figure 1, Index 2) | 5 |

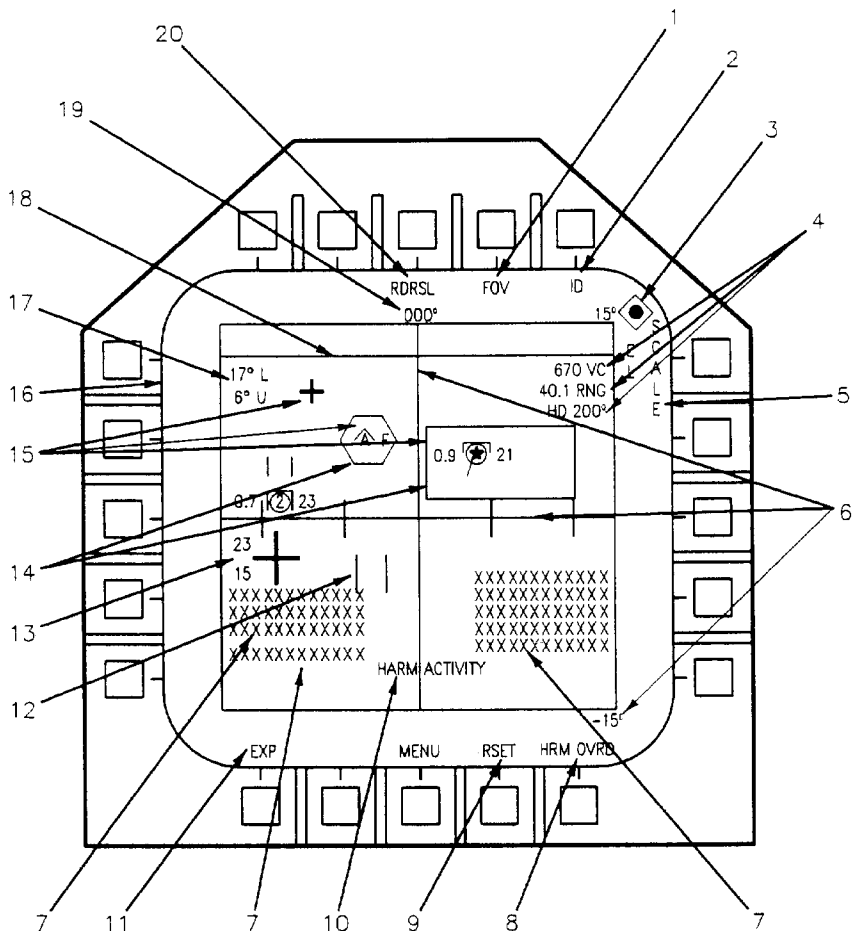
Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 253 | - | U.S. Naval Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0560R1) | 1 Feb 01 | - |
| F/A-18 AFC 292 | - | U.S. Marine Corps Reserves A+ Avionics Upgrade, Incorporation of (ECP MDA-F/A-18 0583) | 1 Feb 01 | - |

1. INTRODUCTION.

2. This work package contains illustrations and descriptions of the display elements common to the AZ/EL display. The illustrations are not meant to

represent typical displays, but to provide general appearance and positioning of the elements which make up the AZ/EL display. The descriptions may contain schematic references which show the development of the display elements.



Az/El SYMBOLOGY

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Figure 1. AZ/EL Symboology (Sheet 1)

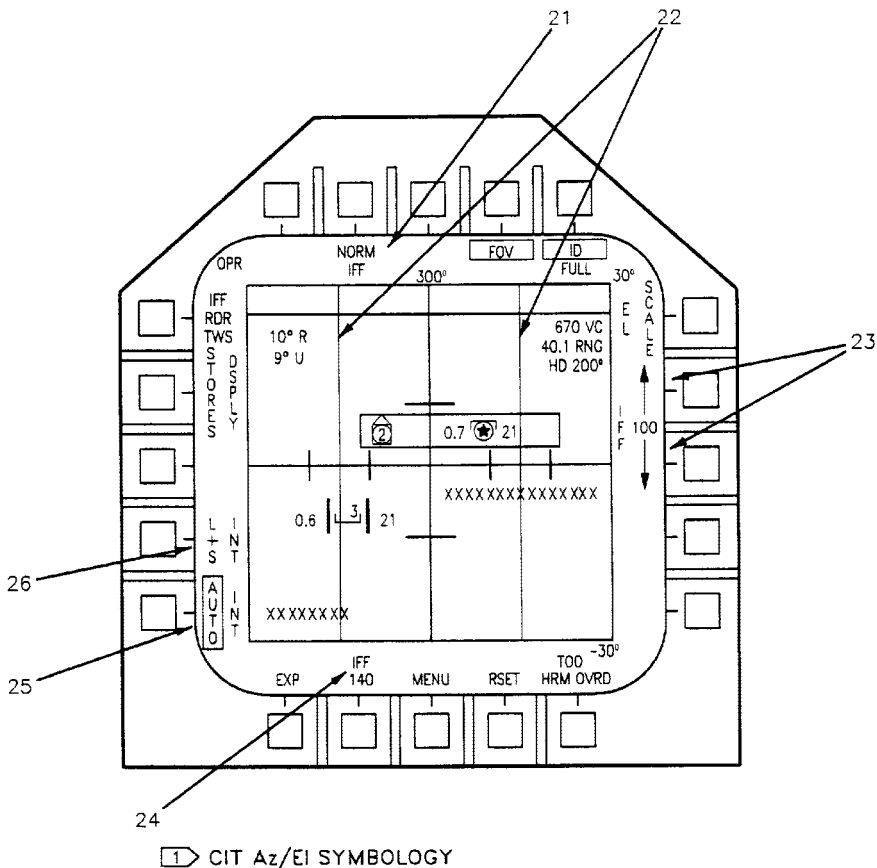


Figure 1. AZ/EL Symbology (Sheet 2)




| Index No. | Display Element (Ref Code) | Description |
|-----------|---------------------------------|---|
| 1 | FOV Option | <p>Displayed when the radar is not in search mode. FOV (field of view) is boxed when selected and is initialized selected at power up with weight on wheels. When FOV is boxed and EXP mode is not selected, the radar FOV and the FLIR FOV areas of coverage are displayed on the attack format (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)</p> <p> Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00)</p> <p>(IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00).</p> |
| 2 | Track File ID Option | <p>Pressing the ID pushbutton switch boxes the ID cue and PRIM is displayed below it. Cycling the switch displays FULL next and back to the unboxed ID cue. ID priorities are pilot ID, radar/NCTR ID, and HARM ID. The ID selection determines the type of HAFU symbols displayed in the ID data windows. When PRIM is boxed, only the data for the prime (top priority) target is displayed. When FULL is boxed, all ID data from the contributing sensors are displayed.</p> |
| 3 | TDC Diamond | <p>Displayed when TDC priority is assigned to the FLIR. (LTD/R Mode Selection and Control Functional Schematic, A1-F18AC-744-500, WP011 00).</p> |
| 4 | MSI Track file Data | <p>When an MSI track file exists, the closing velocity (Vc) or passive ranging uncertainty value, target range and target heading are displayed (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00).</p> |
| 5 | EL SCALE Option | <p>EL SCALE option is displayed when expanded mode is not selected. Pressing the EL SCALE pushbutton switch selects the elevation scale in the order of 30, 60 and 140 (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)</p> <p> Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00)</p> <p>(IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00).</p> |
| 6 | Grid Format and Elevation Scale | <p>Initialized to the 60 (± 30) scaled at power up with weight on wheels or cold starts. Elevations selectable include 10 (± 5), 60, and 140. Cold start default ID option is FULL. Scale selected is displayed on the upper right and lower right corners outside of the tactical display region. The grid format displays fixed horizontal and vertical crosshairs. The horizontal cross hair represents the horizon across the center of the tactical region of the display. The horizontal crosshair always represents 140 of azimuth (70 on either side of the vertical crosshair) with the tick marks representing 30 increments regardless of the scale selected. The vertical crosshair represents aircraft boresight relative to the horizon. The crosshairs are removed in the EXP mode.</p> <p>In 30 scale, vertical crosshair represents 30 in elevation and not tick marks are displayed. When 60 is selected, the vertical crosshair represents in 60 in elevation and tick marks are displayed on the vertical crosshair at 15 increments. When 140 is selected, the vertical crosshair represents 140 in elevation and tick marks are displayed on the vertical crosshair at 30 increments (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)</p> <p> Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00)</p> <p>(IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00).</p> |

Figure 1. AZ/EL Symbology (Sheet 3)



| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 7 | MSI Data Window | Displays the MSI target data under the acquisition cursor or scan center/slow Window cross or for the MSI L&S target when no target is under the cursor. Each ID source has a dedicated window position identified by F (for FLIR), R (for radar), H (for HARM) and/or L4 (for LINK4) are displayed. If the sensor is not providing ID data, the position is blank and the data is positioned in the lower left corner. The five lowest lines in the lower right corner and the three lines in the lower left corner are reserved for ID when FULL option is selected. Each contributing sensor is assigned a priority index number with the radar having the highest index number. The lines are filled from bottom to top on the right side and then bottom to top on the left. This mechanization takes into account the radar can provide 2 or 4 lines of data. |
| 8 | HARM OVRD Option | Displayed when a HARM missile is loaded aboard the aircraft and communicating. Selection of the pushbutton overrides HARM Self-Protect Pullback mode and allows the selected weapon to remain in priority for launch or firing. Option boxed when selected (AGM-88 HARM Pre-Brief (PB) Mode Interface Schematic, A1-F18AE-740-500, WP066 00). |
| 9 | RSET | Selection of the RSET option commands cancellation of the expanded mode, return to the AZ/EL scale selected, and the priority of the MSI targets to be established again (Velocity Vector, Horizon Line, DCLTR, and RSET Select and Display Schematic, A1-F18AC-742-500, WP019 00)  DCLTR and RSET Select and Display Schematic, A1-F18AH-742-500, WP035 00) (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 10 | HARM Activity | Displayed when HARM mode is TOO and a target is detected which is suitable for MSI contribution but is greater than 10 off HARM boresight. |
| 11 | EXP Option | Provided to select AZ/EL expanded display. EXP is boxed when selected and expanded display is commanded. Pressing EXP when boxed returns to the non-expanded AZ/EL format. EXP is displayed when the L&S target is in the largest AZ/EL tactical region. When a target exceeds the limits of the EXP display, the AZ/EL expanded display automatically reverts to the non-EXP display (EXP is unboxed) (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)  Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00) (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |

Figure 1. AZ/EL Symbology (Sheet 4)



| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 12 | Acquisition Symbol | <p>The acquisition symbol (captain's bars) is initially displayed on the AZ/EL display next to pushbutton 4 outside of the tactical display region when the TDC is assigned to the AZ/EL display. Applying force to the TDC pushbutton switch without depressing it causes the captain's bars to slew to any position on the display. The captain's bars are replaced by the scan centering/slew cross when the captain's bars are placed in an open area of the AZ/EL display tactical region and the TDC pushbutton switch is depressed</p> <p>(Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)</p> <p> Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |
| 13 | Scan Center/Slew Cross | <p>Scan center dewing cross is displayed when the TDC is pressed, except in expanded mode, and replaces the acquisition symbol. The cross is moved on the display by pressure on the TDC. Altitude coverage values are displayed with the cross based on the sensor and mode selected. Only one value is displayed when FUR mode is pointed. Scan center cross is removed and the acquisition symbol is displayed when:</p> <ol style="list-style-type: none"> 1. the symbol is driven outside of the tactical area of the display 2. the selected sensor is changed 3. the sensor control switch is moved toward the AZ/EL display 4. expanded mode (EXP) is selected. <p>Sensor scan center is adjusted to the cross position when the TDC is released. When L&S, BST, and SLAVE are boxed, they are deselected when the TDC is released with the cross in open space. SLAVE is selected and boxed when the TDC is released with the cross over a target. The scan center cross is displayed for 2 seconds after TDC release</p> <p>(Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)</p> <p> Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |

Figure 1. AZ/EL Symbology (Sheet 5)


| Index No. | Display Element (Ref Code) | Description |
|-----------|----------------------------|---|
| 14 | FOV Cue | <p>The shape, size, orientation, and position of the FOV cue is based upon the current operating mode of the sensors. The sensor FOV cue for the selected AZ/EL page is always displayed at a higher intensity and in yellow when the COLOR option is selected on the Attack Data sublevel. Low brightness intensity indicates that another sensor is the selected sensor. FOV cues are provided for the radar and for the FLIR.</p> <p>Radar FOV Cues - When in a search mode, the radar FOV cue is a rectangle for TWS, RWS, RWS submodes, and VS. For each of these modes, the scan volume is always parallel to the horizon. The FOV cue is always displayed at the radar-reported scan center position. During scan centering, the MC will not command the radar to the new LOS until the TDC is released. Thus, the radar FOV will not follow the Scan Centering Cross around the format as the cross is stewed, but will remain in the previous LOS position until TDC release. The rectangles approximate the total radar scan coverage of a search frame accounting for the total number of bars and the beam width of the radar. The size of the rectangle will change when the radar volume is adjusted or when the elevation scale on the Az/El format is changed.</p> <p>No radar FOV cues are provided in the following cases:</p> <ul style="list-style-type: none">When the radar is in STTWhen the radar is in STT RAIDDuring ACM modesWhen the radar is operating in Stow-1 or Stow-2 <p>FLIR FOV Cue - With the FLIR in Pointed or Pointed-TWS mode, the FOV cue is a hexagon large enough to encompass a HAFU symbol. The hexagon size does not indicate the total coverage of the FLIR FOV because such a cue would be extremely small for a three degree FOV. Therefore, the hexagon should be interpreted to only indicate the LOS of the FLIR. FLIR autotrack is indicated with captains bars around the D/L command window. The FOV cue is always displayed at the appropriate FLIR-reported position. When the FLIR is in one of the scanning TWS modes (QTR, HALF, FULL), the FOV cue is a rectangle parallel to the horizon, centered at the center of the scan volume. The rectangle approximates the total FLIR scan coverage</p> <p>(Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)</p> <p> Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00).</p> |

Figure 1. AZ/EL Symbology (Sheet 6)



| Index No. | Display Element (Ref Code) | Description |
|-----------|---|---|
| 15 | Target Symbology | MSI targets which fall within the current AZ/EL format tactical region are displayed on the Non-Expanded AZ/EL format. For targets which are represented by a HAFU symbol, the symbols are displayed at the appropriate location based upon the selected scaling of the format: however, the target heading/aspect vectors are inhibited on the AZ/EL format. For targets which are represented by a + symbol (low priority target, or LPT), the + symbols are displayed at the appropriate location based upon the selected scaling of the format |
| 16 | Selected Sensor Indication | Displays the selected sensor and the sensor operating mode. Selecting the pushbutton cycles the mode to display each of the available sensors in a sequence based on availability. RADAR: RDR-STT, RWS, VS, TWS, GACQ, VACQ, WACQ, BST. FLIR: FLIR-TRACK, PNT HARM: HARM-PB, SP, TOO (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 17 | Digital Azimuth-Elevation/Target Relative Position Data | Digital azimuth (L-left, R-right) and elevation (U-up, D-down) of the selected sensor line of sight or scan center is displayed when the display mode is non-expanded (EXP unboxed). When in the expand mode (EXP boxed), the digital values indicate the azimuth of the MSI L&S target relative to the actual aircraft heading (L, R) and the elevation relative to the horizon (U, D). In the EXP mode, the azimuth and elevation digital readouts are displayed at the top center and left center of the tactical region of the display. In the non-EXP mode, the azimuth and elevation, digital readouts are displayed at the upper left corner in the tactical region of the display (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)  Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00) (IR/Video Processing and Displays Functional Schematic, A1-F18AC-744-500, WP007 00). |
| 18 | Dugout | The dugout is located at the top of the AZ/EL format for displaying trackfiles without elevation data (e.g., data link and ALR-67 targets). If the L&S target is displayed in the dugout, the EXP option is not provided. In addition, the dugout is not displayed if the Expand option is selected. All other Az/El format functions, including those related to a trackfile-under-sursor are available within the dugout. (Air to Air Antenna Control Functional Schematic, A1-F18AC-742-500, WP015 00)  Antenna Control Functional Schematic, A1-F18AH-742-500, WP015 00). |
| 19 | Aircraft Heading | Displayed at the top of the vertical crosshair to indicate the actual heading of the aircraft. |

Figure 1. AZ/EL Symbology (Sheet 7)








| Index No. | Display Element (Ref Code) | Description |
|---|---|---|
| 20 | RDRSL Option | Displayed on all AZ/EL sensor displays when in A/A master mode. Radar slave or follow-the-radar mode is HOTAS and pushbutton switch selectable. Boxed when selected and commands all OCS sensors to operate orientated to the radar mode selected. Option is removed from the display if radar is OFF, in BIT, STDBY, or FLOOD mode. |
| 21 | CIT Interrogation Type  | The interrogation type is selected by pressing the pushbutton to select Normal, Correct Code, or Auto mode (NORM, CC, AUTO) Normal mode interrogations are done in only the mode selected on the UFC and only targets responding in that mode are reported. Correct code interrogations are single mode interrogations in Mode 1, 2, or 3. The specific selective identification feature (SIF) is selected on the UFC and only targets which respond with the selected code are reported. Auto interrogations are done in all enabled modes. All targets that responding any selected mode are reported. |
| 22 | CIT FOV Coverage  | During interrogations the field of view of the CIT for the selected azimuth coverage is displayed. The cue is parallel lines from top to bottom of the display at the azimuth selected. The cue is displayed at high intensity on the IFF/RDR AZ/EL page and at lower intensity on the other sensor pages. When the CIT coverage is 70 (140 selected) the coverage is displayed just inside of the actual 70 border. |
| 23 | CIT Range Coverage  | CIT range coverage is selected by pressing the up or down arrow to increment/decrement the displayed range coverage. The buttons select range in the order 5, 10, 20, 40, 80, and 100 nm. The selection wraps around when selecting down from 5 nm or up from 100 nm. |
| 24 | CIT Azimuth Coverage  | Selecting the pushbutton selects the CIT azimuth coverage in the order 20, 40, 80, and 140. The selection wraps around when selected with 20 or 140 displayed. |
| 25 | CIT AUTO INT Option  | Selecting AUTO INT (AUTO boxed) commands the interrogator to do one-shot interrogations when an L&S is designated, L&S STEP is done, or on Q/L attempts. The option is enabled at power-up. |
| 26 | CIT L+S INT Option  | Selecting L+S INT (INT boxed) commands repeated, pointed interrogations around the L&S target. If an L&S target does not exist, the selection is treated as a preselection. |
| LEGEND | | |
|  F/A-18A 162394 THRU 163175 AFTER F/A-18 AFC 292. | | |

Figure 1. AZ/EL Symbology (Sheet 8)